

115
C 3337
CHRISTIAN THOUGHT.

LECTURES AND PAPERS ON

PHILOSOPHY,

CHRISTIAN EVIDENCE,

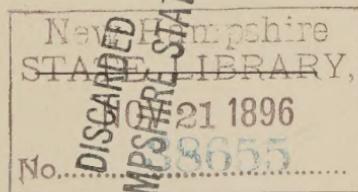
BIBLICAL ELUCIDATION.

FIFTH SERIES.

EDITED BY

CHARLES F. DEMES, LL.D.,

PRESIDENT OF THE AMERICAN INSTITUTE OF CHRISTIAN PHILOSOPHY



NEW YORK:

WILBUR B. KETCHAM,

13 COOPER UNION.

20808

v.5
1888

Copyright
BY CHARLES F. DEEMS,
1888.

CONTENTS.

LECTURES AND PAPERS.

THE CONSERVATION OF SPIRITUAL FORCE,	1
J. W. Lee, D.D.	
A LITERAL GENESIS I. IN THE LIGHT OF PRESENT KNOWL- EDGE,	17
Charles B. Warring, Ph.D.	
PAUL'S PSYCHOLOGY,	81
Isaac S. Hopkins, Ph.D., D.D.	
CHRISTIAN EVOLUTIONISM AND ITS INFLUENCES ON RELIG- IOUS THOUGHT,	97
Prof. Daniel S. Martin.	
A SYMPOSIUM,	125
R. Abbey, D.D. ; Prof. Elliott Coues ; Prof. Edward D. Cope ; Lester F. Ward, A.M. ; Sir J. W. Dawson, LL.D. ; Mr. J. P. Les- ley ; Mr. S. P. Langley ; A. H. Lewis, D.D.	
THE RELIGION OF HUMANITY,	161
Lyman Abbott, D.D.	
A STUDY ON TRICHOTOMY,	177
J. G. Van Slyke, D.D.	
AN INTRODUCTION TO THE STUDY OF COMPARATIVE RELIG- ION,	192
Frank F. Ellinwood, D.D.	
PHYSICAL THEORIES OF MIND,	241
Rev. James T. Bixby, Ph.D.	
DEPRAVITY AND ITS CURE,	269
G. E. Strobridge, D.D.	
MONISM,	283
Robert L. Dabney, D.D., LL.D.	

BIBLE ACCOUNT OF THE CREATION IN THE LIGHT OF MODERN SCIENCE,	296
E. A. Davies, F.R.G.S.	
THE ABSOLUTE, A PERSON,	321
Thomas Hill, D.D., LL.D.	
HISTORY: A DEMONSTRATION UNDER THE MORAL LAW,	335
Rev. James F. Riggs, A.M.	
SCIENTIFIC EVIDENCE OF THE SUPERNATURAL,	356
Prof. Henry S. Williams.	
THE MIRACLE OF MIRACLES,	370
W. G. Blaikie, D.D.	
CONDITIONS OF SPIRITUAL LIGHT,	381
Amory H. Bradford, D.D.	
SOME ASPECTS OF THEISTIC LOGIC,	401
Prof. Alexander T. Ormond, Ph.D.	
SOCIAL PROBLEMS: HOW THEY ARISE, WHAT THEY ARE, AND HOW MODERN POLITICAL ECONOMY VIEWS THEM,	417
Prof. Richmond Mayo Smith.	
THE RELIGIONS OF INDIA,	430
Sir William Wilson Hunter.	
CHARLES DARWIN AND ASA GRAY IN CONTRAST,	452
Joseph Cook.	
THE HUMORS OF METAPHYSICS,	463

VIEWS AND REVIEWS.

SCIENTIFIC SYMPATHY,	30
Joseph Parker, D.D.	
LAW AND MIRACLE,	43
President Magoun.	
FAITH,	50
Mr. William B. Noble.	
ANTICIPATIONS OF SCIENTIFIC TRUTH IN SCRIPTURE,	55
Francis W. Upham, LL.D.	

PROF. HUXLEY AND THE BIBLE,	147
SCIENTISTS AT PRAYER,	151
DEMOLISHING THE BIBLE,	151
THE FALLING APPLE,	152
THE CHANGING CIRCULATION,	153
A GREAT BLUNDER OF SCIENCE,	214
INFLUENCE OF PHILOSOPHY ON POLITICS,	219
Mr. Bumpei Shirasu.	
RELIGIOUS WORK IN UNIVERSITIES,	224
Professor Drummond.	
TO THE THIRD AND FOURTH GENERATION,	229
THE BASIS OF MORALITY,	306
NATURAL OR SUPERNATURAL EXPLANATION OF PHENOMENON,	314
Richard Owen.	
CHAUNCEY M. DEPEW'S REPLY TO JULIAN HAWTHORNE,	393
VERDICT AGAINST SPIRITUALISM,	395
RELIGION,	468
James Russell Lowell.	
INSTITUTE WORK,	59, 65, 67, 139, 234, 317, 399, 470
MISCELLANEOUS ARTICLES,	16, 154, 230, 316, 429, 463
ABOUT BOOKS,	63, 157, 237, 320, 471

INDEX BY AUTHORS.

ABBEY, D.D., R.,	125
ABBOTT, D.D., LYMAN,	161
BIXBY, PH.D., REV. JAMES T.,	241
BLAIKIE, D.D., REV. W. G.,	370
BRADFORD, A.M., REV. AMORY,	381

COOK, JOSEPH,	452
COPE, PROF. EDWARD D.,	128
COUES, PROF. ELLIOTT,	128
DABNEY, D.D., LL.D., ROBERT L.,	283
DAVIES, F.R.G.S., E. A.,	296
DAWSON, LL.D., Sir J. W.,	135
DEPEW, CHAUNCEY M.,	393
DRUMMOND, PROF.,	224
ELLINWOOD, D.D., FRANK F.,	192
HILL, D.D., LL.D., THOMAS,	321
HOPKINS, PH.D., D.D., ISAAC S.,	81
HUNTER, SIR WILLIAM WILSON,	430
LANGLEY, MR. S. P.,	137
LEE, D.D., J. W.,	1
LESLEY, MR. J. P.,	136
LEWIS, D.D., A. H.,	137
LOWELL, JAMES R.,	468
MAGOUN, PRESIDENT,	43
MARTIN, PROF. DANIEL S.,	97
NOBLE, MR. WILLIAM B.,	50
ORMOND, PH.D., ALEXANDER T.,	401
OWEN, RICHARD,	314
PARKER, D.D., JOSEPH,	30
RIGGS, A.M., REV. JAMES F.,	335
SHIRASU, MR. BUMPEI,	219
SMITH, PROF. RICHMOND MAYO,	417
STROBRIDGE, D.D., REV. G. E.,	269
UPHAM, LL.D., FRANCIS W.,	55
VAN SLYKE, D.D., J. G.,	177
WARD, A.M., LESTER F.,	129
WARRING, PH.D., CHARLES B.,	17
WILLIAMS, HENRY S.,	356

CHRISTIAN THOUGHT.

THE CONSERVATION OF SPIRITUAL FORCE.

[A Lecture delivered before the American Institute of Christian Philosophy, August 26, 1886.]

BY REV. J. W. LEE, D.D.,

Atlanta, Ga.

THE doctrine of the correlation, equivalence, persistence, transmutability, and indestructibility of force, or the conservation of energy, has had vast influence upon the thought and the life of our time. It has furnished a new opening through which to behold the nature of things. It has given to men a new working hypothesis and richer views and conceptions of the universe and its Author. The civilization of the present, with all that it contains and all that it promises, is due more to this than to any other scientific doctrine or principle. According to Prof. Balfour Stewart, there are eight forms of energy, or force—the energy of visible motion, visible energy of position, heat motion, molecular separation, atomic or chemical separation, electrical separation, electricity in motion, and radiant energy. Now, taking this earth as a complete whole, containing within itself all these forms of energy, and so isolated from the rest of the universe as to receive nothing from it and to add nothing to it, then the principle of the correlation of forces asserts that the sum of all these forces is constant. “This does not assert that each is constant in itself, or any other of the forms of force enumerated, for in truth they are always changing about into each other—now some visible energy being changed into heat or electricity, and anon some heat or electricity being changed back again into visible energy; but it only means that the sum of all the energies

taken together is constant. There are eight variable quantities, and it is only asserted that their sum is constant, not by any means that they are constant themselves."

For the purpose of elucidating our principle in the realm of nature, we will consider it as it applies to some of the useful forces whose effects we can measure, and whose origin we can trace and determine.

1. There is the force of conserved fuel. Away back in the carboniferous period of the world's history, there grew immense forests which, in succeeding ages, were turned under the earth, and in the process of the years were changed into coal and oil and gas. These have been treasured for untold ages in the mountains and in the bowels of the earth. Now they are brought forth by the applied intelligence of man, to turn his wheel, draw his car, cook his food, propel his plow, and to light his home and his street. The force in one ton of coal is capable of accomplishing more work in a few hours than one man could in a lifetime. Then there are the great forests which are growing to-day. These also contain force for the propelling of machinery and for the illumination of home and street. These forces originated in the sun. Coal is solidified sunshine, oil is liquid sunshine, gas is diffused sunshine.

2. There is the conserved force of food. This is found primarily in the grass, the wheat, the corn, the rice, the fruit, which grow in our fields. The lower animals feed on these, and through the processes of digestion and assimilation they are transmuted into blood and bone and muscle—thus furnishing man, who stands at the top and the end of the creative process, with a more refined, higher form of food. But whether in the shape of grass, wheat, rice, fruit, or in the more refined form of animal flesh, these various elements of food are only so much transmuted sunshine. Before they ever adorned the surface of our fields, and purified and filled with sweet aroma the air we breathe, or moved in the lowing herd over the meadow, or flew in the beautiful bird through the sky, they were held in solution in the sunbeam. Sunshine constitutes the fuel, the food, and the life of our earth.

3. There is the conserved force of flowing water. This turns

the wheel which gins the cotton, spins the thread, weaves the cloth, and grinds the corn. All the force which water possesses for the performance of work comes from the sun. The warm rays of the sun coming down on southern seas and rivers causes the water thereof to evaporate, which is then carried on the wings of north-bound winds to colder climes. Then the diffused waters gather themselves into clouds, and fall in rain to flow down the rivers, thus exchanging their energy of position, which they have obtained from the sun, for the actual energy of the turn of the wheel.

4. The conserved force of moving winds. By the aid of this ships spread their sails and pass from continent to continent with the products of the earth. Again, all the force which the winds possess for the accomplishment of work comes from the sun. The rays of the sun coming down with great intensity upon certain parts of the earth heat the atmosphere. Into these heated parts come the winds from colder regions. Thus currents and counter currents are created. By putting the wheel of the windmill into these currents this force is converted into the ground wheat and the drawn water. Thus all the different forms of force displayed in the growing forests, the waving harvest fields, the flying birds, the lowing herds, the racing railway train, the whirr of the spindle, the ring of the hammer, the pulsating blood, come directly from the sun. The force, too, seen in all these physical, vegetable, animal, commercial, human realms, is the exact equivalent of what was poured into them by the sun. The earth contains no other life capital or force capital than what was paid over to it by the sun. It has issued no currency of its own, not even enough to run a watch, or to send the blood once around the body, or even to transport a piece of bread to a starving man. All our capital is borrowed, and if we were to cease to borrow, we would be bankrupt in a single day. We are to remember, too, that by so much force as the sun has parted with to our earth, and to other worlds which look to it for supplies, by so much has its own force been decreased. If we knew how much force the sun had in the beginning, and should subtract from this amount all that it has given away to the present time, we would know exactly the state of its assets to-day. We

know not what the sun's resources are. We know not by what methods it has been replenishing its supplies of light and heat for millions of ages past, whether by chemical combination, meteoric impact, or condensation, we only know by so much as it has in the ages past parted with, by so much less force it has to-day. That it has been able to supply our little world and others of like dimensions, however, with heat and light and life for millions of ages is not at all strange, when we consider what an immense ball of fire the sun is. It has a diameter of a million miles in round numbers. Storms which travel across our world at the rate of sixty miles an hour, would move across the surface of the sun at the rate of twenty thousand miles an hour. The flames of a burning forest which on our world would rise one hundred feet into the air, on the sun would rise to the height of two hundred thousand miles. The sun, too, has enough force on hand to supply our world and others with heat for untold ages yet to come, but, unless its supply is replenished, the time will come when it will become bankrupt, and will be a burnt out char in the heavens. This is so because the sun is the center of that great natural realm, one of the universal laws of which is the law of exclusiveness.

In accordance with this law, what the sun has in the way of force the other planets do not have, and what other planets obtain from the sun that body has forever lost. This is only another name for the law of the correlation of forces. This law applies not only to the force of the sun, but to all forces on this earth which come from that body. What one tree gathers into itself is at the expense of the general fund of heat force which goes to make trees. What one bird takes into its body is at the expense of all force which goes to make birds. What one man takes into his physical frame is at the expense of the general fund of force which goes to make human bodies. What force is contained in the cloud in conserved water to turn the wheel, or in conserved electricity to carry the message, is at the expense of the general fund of force.

"It is an essential part of the doctrine of the correlation of forces, that force is never absolutely created, and never absolutely destroyed, but merely transmuted in form or mani-

festation." According to this principle the forces and agencies with which the world is regulated and controlled are one great brotherhood. All forces are ultimately one force. The rising up of force in one point involves the subsidence of force in some other point. The amount rising up, too, is the exact equivalent of the amount subsiding. When a rock falls from a church steeple the earth rises as much to meet the rock, in proportion to its mass, as the rock falls to meet the earth, in proportion to its mass. When a man shoots a rifle ball from a gun, as much force goes back against his shoulder as goes out through the muzzle of the gun. What the gun lacks in velocity it makes up in mass, and what the ball lacks in mass it makes up in velocity. When a pine tree is cut down and split into small pieces and put into an engine, just the same amount of heat is gathered from it that was garnered from the sun in the hundred years of its growth. Then, this heat is converted into an equivalent of steam, this steam into an equivalent of mechanical motion. The sunshine, the pine tree, the heat, the steam, the mechanical motion, are only different forms of the same thing. Many scientific men claim that this law holds good not only in the realm of the natural world, but in the mental and moral as well. Mr. Thomas Huxley said, in a celebrated address in this country, that a speech was so much transmuted mutton. According to Prof. Alexander Bain, there are five chief powers or forces in nature: one, mechanical or molar, the momentum of moving matter; the others, molecular, are embodied in the molecules, also supposed in motion—these are, heat, light, chemical force, electricity. One member of our vital engines, the nerve force, allied to electricity, fully deserves to rank in the correlation.

"Taking the one mechanical force, and those three of the molecular named heat, chemical force, electricity, there has now been established a definite rate of commutation or exchange, when one passes into any other.

"The mechanical equivalent of heat, the seven hundred and seventy-two foot-pounds of Joule, expresses the rate of exchange between mechanical momentum and heat; the equivalent for exchange of heat and chemical force is given (through the researches of Andrews and others) in the figures expressing the heat of com-

binations; for example, one pound of carbon burned evolves heat enough to raise eight thousand and eighty pounds of water one degree C. The combination of these two equivalents would show that the consumption of half a pound of carbon would raise a man of average weight to the highest summit of the Himalayas.

“As applied to living bodies, the following are the usual positions. In the growth of plants the forces of the solar ray-heat and light are expended in decomposing (or deoxidizing) carbonic acid and water, and in building up the living tissues from the liberated carbon and the other elements; all which force is given up when these tissues are consumed, either as fuel in ordinary combustion, or as food in animal combustion. It is this animal combustion of the matter of plants and of animals (fed on plants)—namely the reoxidation of carbon, hydrogen, etc.—that yields all the manifestations of power in the animal frame. And in particular, (1) a certain warmth, or temperature of the whole mass, against the cooling power of surrounding space; it maintains (2) mechanical energy as muscular power; and it maintains (3) nervous power, or a certain flow of the influence circulating through the nerves, which circulation of influences, besides reacting on the other animal processes—muscular, glandular, etc.—has for its distinguishing concomitant mind.

“The extension of the correlation of force to mind, must be made through the nerve force, a genuine member of the correlated group.

“Of mind apart from body we have no direct experience, and absolutely no knowledge. The wind may act on the sea, and the waves may react on the wind, but the agents are known in separation—they are seen to exist apart from the shock of collision; but we are not permitted to see a mind acting apart from its material companion.

“We have every reason for believing that there is an unbroken material succession, side by side with all our mental processes. From the ingress of a sensation to the outgoing responses in action, the mental succession is not for an instant disengaged from a physical succession. A new prospect bursts upon the view; there is a mental result of sensations, emotion, thought, terminating in outward displays of speech or gesture. Parallel

to this mental series is the physical series of facts, the successive agitation of the physical organs, called the eye, the retina, the optic nerve, optic centres, cerebral hemispheres, outgoing nerves, muscles, etc. There is an unbroken physical circle of effects, maintained while we go the round of the mental circle of sensation, emotion, and thought. It would be incompatible with every thing we know of the cerebral action to suppose that the physical chain ends abruptly in a physical void, occupied by an immaterial substance, which immaterial substance, often working alone, imparts its results to the other edge of the physical break, and determines the active response—two shores of the material with an intervening ocean of the immaterial. There is, in fact, no rupture of nervous continuity. The only tenable supposition is that mental and physical proceed together as individual twins.

“ It is made a mystery how mental functions and bodily functions are allied together at all. That, however, is no business of ours; we accept this alliance, as we do any other alliance, such as gravity with inert matter, or light with heat. As a fact of the universe, the union is properly speaking, just as acceptable and as intelligible, as the separation would be, if that were the fact.

“ That there is a definite equivalence between mental manifestations and physical forces, the same as between the physical forces themselves, is, I think, conformable to all the facts, although liable to peculiar difficulties in the way of decisive proof.

“ The mental manifestations are in exact proportion to their physical supports. . . . There must be a numerically proportioned rise and fall of the two together. I believe that all the unequivocal facts bear out this proportion.

“ In the employment of external agents as warmth and food, all will admit that sensation rises exactly as the stimulant rises, until a certain point is reached, when the agency changes its character; too great heat destroying the tissues, and too much food impeding digestion. There is, although we may not have the power to fix it, a sensational equivalent of heat, of food, of exercise, of sound, of light. There is a definite change of feeling, an accession of pleasure or of pain, corresponding to a rise of temperature in the air of 10° , 20° or 30° . And so with regard to

every other agent operating upon the human sensibility; there is in each set of circumstances, a sensational equivalent of alcohol, of odors, of music, of spectacle.

“The equivalence may also be represented under vital or physiological action. The chief organ concerned is the brain; of which we know that it is a system of myriads of connecting threads, ramifying, uniting, and crossing at innumerable points; that these threads are actuated or made alive with a current influence called nerve force; that this nerve force is a member of the group of correlating forces; that it is immediately derived from changes in the blood, and, in the last resort, from oxidation, or combustion, of the materials of the food, of which combustion is a definite equivalent. We know further that there can be no feeling, no volition, no intellect, without a proper supply of blood containing both oxygen and the materials to be oxidized, that, as the blood is richer in quality in regard to these constituents, and more abundant in quantity, the mental processes are more intense, more vivid.

“In order to improve the grade of thought, improve the quality and increase the quantity of the food: increase the supply of oxygen by healthy residence; let the habitual muscular exertion be such as to strengthen and not impair the functions: abate as much as possible all excesses and irregularities, bodily and mental; add the enormous economy of an educated disposal of the forces, and you will develop a higher being, a greater aggregate of power.

“There is thus a definite, although not a numerically statable relation, between the total of the physico-mental forces, and the total of the purely physical processes. The grand aggregate of the oxidation of the system includes both; and the more the force taken up by one the less is left to the other.” Such is the statement of the correlation of mind to the other forces of nature, made by so competent an authority as Professor Bain.

Thus we have it stated in clear and unequivocal language that mind is only a refined, sublimated form of physical force. The great poems, paintings, and literature of the world are only so much transmuted sunshine—a higher form of the same force we see manifested in the flying railway train. In the latter case, the

solidified sunshine contained in the coal is transmuted through the furnace of the engine into mechanical motion ; in the former, the heat contained in food was transmuted through the human brain into literature and art. Perhaps it would not be at variance with the truth to assume that the force, mental or otherwise, expended by men who have spent their lives under the dominion of the natural law of exclusiveness, may be accounted for in accordance with the doctrine of the correlation of forces. Even mind and spirit when they come to be carnal are subject to all the limitations and bearings of the law of sin and death, which is the Scriptural name of the law of exclusiveness.

The religious movement of the prophet Mahomet may be accounted for in accordance with the principle of the correlation of forces. It is to be remembered that the personality of Mahomet is no more the equivalent of the vast movement which has existed and exists to-day under his name, than the acorn is the equivalent of the immense oak-tree which has grown from it. The acorn, plus all the oxygen, carbon, hydrogen, and other forces of sky and earth which it has caught and organized, is the equivalent of the oak-tree. The soil and the sky everywhere contain oaks in solution. Through acorns these are precipitated into trees.

The mental, political, and social atmosphere of Turkey contained the Mahometan movement in solution before Mahomet was born. Through him it was precipitated into the Koran, mosque, prayer, and worship. Mahomet relied for success upon the methods with which men ordinarily succeed. He appealed to men's love of fame, of pleasure, of conquest, of power, of riches. He simply organized the latent aspirations and hopes and fears of his countrymen into a great kingdom essentially secular and sensual, but with religious variations.

In accordance with the principle of the correlation of forces we may account for the success of Budha, Confucius, Cæsar, and Bonaparte. We desire to apply this doctrine to the life and work of Christ. Granting as we must, that all physical force may be estimated by it, and even that the work and thought of men, in so far as they live under the natural law of selfishness or exclusiveness, we desire to inquire if the life and work of Christ

form no exception to its operation as ordinarily regarded. Can we in accordance with this principle account for the life and influence of Christ among men, on the assumption that He was only a man? Has no more force issued from the person of Christ than subsided when He was crucified?

We have seen how the forms of physical force in the shape of fuel, food, moving waters, and winds may be traced directly to the sun. Let us consider some of the forms of spiritual force which are traceable directly to the life of Christ, and inquire if they may be accounted for, as the force which comes from the sun may be, by the principle of the convertibility of forces?

1. There is the conserved spiritual force of Christian literature. This is stored up in the Bibles of the world. In commentaries upon its text, in expositions of its principles, in books illustrating its meaning. If all the Bibles of the world, books written about the Bible—in favor of it or against—and all the books which have been inspired by some truth or precept taught in the Bible, and all the books which owe their existence directly or indirectly to the Bible, were burned up, Christendom would be well nigh without literature. All Bibles and all books and literature which have grown out of the Bible owe their existence directly to Christ. They have come as straight from Him as the coal in the mountain has come from the sun. Much force has been expended in the writing of all these books and in printing them, binding them, circulating them. They represent millions of dollars, ages of painful, patient thought. Into them a marvellous amount of force has lifted itself—physical force, money force, thought force. We are to find its equivalent. All the force that has arisen in Christian literature has subsided at some point, and the amount that subsided is the exact equivalent of that which has arisen. It must be remembered, too, that distinctly Christian literature has not made its way in the world, as have the writings of Homer and Plato, by their affinity with man's fancy and intellect. The wonderful interest which has ever centered round the Bible, is totally different in kind and degree from that which centers around the works of Shakespeare. Whatever there is of literary merit, of philosophic thought, or of poetic depth in the Bible is incidental.

2. There is the conserved spiritual force of Christian art. The masterpieces in painting, sculpture, music, poetry, and architecture are Christian. The inspiration which produced Milton's "Paradise Lost," Handel's "Messiah," Power's "Eve," and "St. Peter's at Rome," has all come from Christ. In the conception and production of these, an immense amount of the most subtle, refined force has been expended.

3. There is the conserved force of Christian money. This has taken the form of church buildings, buildings for education, for orphans, for the sick, for the wretched and the poor. There is not a great city in the world to-day without a Christian Church edifice. They are the expressions of a great force, of which we are seeking to find the equivalent. They owe their existence directly to the person of Christ. The millions of money which have been spent in their erection have been spent because of love to Him. They are as directly related to Him as the oak-tree is to the sun. If all these churches were burned down to-day, men would begin at once their erection of better ones to take their places. The conserved force of Christian money, then, which tends to lift itself into church edifices, is not exhausted in those which already stand upon the earth, but just as much as has lifted itself into brick and marble, and window and dome and pinnacle is ready to take the same forms if the necessity for them were laid upon the Christian world.

4. There is the conserved force of Christian home life. The force here referred to is not manifest in the life itself, but in the form which family life has taken in the Christian world. There is hardly a home in Christendom to-day but has been formed directly or indirectly with reference to Christ. Into those places where character is formed, where revolutions are started, where Wesleys and Gladstones are developed, where eternal issues pend, Christ has come quietly and silently to regulate, to dominate and control. To thus influence, regulate, and vitally touch homes, to thus determine their form, appointment and character, requires a great deal of force.

5. There is the conserved force implied in the inception and perpetuation of the Christian Calendar. Infidels, materialists and atheists, in dating their letters, pay tribute to the character

of Christ in the fact that they recognize He has ushered in a new era. Christ has claimed and held through nearly two thousand years one day out of every week to be devoted to His service. The day upon which He was born is celebrated in the hearts of men and in the arts of men. To change the world's calendar, to inaugurate and make permanent a new date, to impel the world to set apart a day for His worship, to furnish the world with new festivals and holidays, has required, certainly, a vast amount of force. The source of this force, and the origin of this force, we are to trace and determine, and we are also to find its equivalent.

6. There is the conserved Christian force implied in the fact that Christ has won the hearts of men. To win the disinterested love of one man takes much force, more than most men have. To win the love of a State takes more. But to win and to hold through the perturbations and revolutions of Kingdoms and Republics, the undying love of the best and the purest men on earth requires an infinite amount of force. This point in Christ's character greatly impressed the first Napoleon. Said he, "I know men. Christ is not a man. I have seen the time when I could inspire thousands to die for me, but it took the inspiration of my presence and the power of my word. Since I am away from men, a prisoner on Helena, no one will die for me. Christ, on the other hand, has been away from the world nearly two thousand years, and yet there are millions who would die for Him. I tell you Christ is not a man. I know men."

It would be impossible to recount all the institutions, books, civilizations, laws, discoveries, inventions, homes and hearts, into which the force of Christ's life has for the past nineteen hundred years been lifting itself. As the sun expresses itself in the meadow, and lifts itself into the trees of the forests, so Christ has been embodying Himself in the institutions, homes, and thoughts of men. The scientists say all force can be accounted for. When force has risen up at one point it has subsided at another. The amount rising up being the exact equivalent of the amount subsiding. Upon this principle we are seeking to account for all this force that, coming from Christ, has expressed itself in the domestic, social, political and ecclesiastical institutions

of men. More has risen than can be computed by human arithmetic, or compassed by human imagination, or comprehended by human thought. Where did it come from? Where did it subside? At what point did it disappear to rise again in such overwhelming volume, and such sweeping and far reaching influence? We go back through eighteen hundred years. We are standing in Jerusalem. We hear conflicting reports of a strange, daring young man. At length he is pointed out to us. There is nothing remarkable about his appearance. He is a Jew. He was born among the poor. He is not noted for culture. He has no social position. He has no money. He has no political power or prestige. He has no army at His command. He has no philosophical system. He is connected with no academy. He is only thirty-three years old. His words are contained in no books. They are simply in the memory of His disciples. He is misunderstood. His own disciples do not know what to make of Him. Finally He is arrested, and tried, and condemned, and crucified. He dies between two thieves, scorned, scoffed, buffeted, and friendless. Keep in mind the principle we are considering. All force can be measured. No more force rises up than subsides. Action and reaction are equal. We are seeking to account, in accordance with this principle, for the vast amount of force Christ has poured into the institutions and thought of humanity. Is this young man's life, seemingly so insignificant and weak, the exact equivalent of all the churches, schools, colleges, arts, literature, homes, governments, sacrifice, heroism, good works, martyrdom, patience, love, and hope that have by general consent resulted from His existence in the world? If so, was He only a man? Multiply thirty-three years by poverty, toil, contempt, sorrow, and crucifixion, and you have one product. Multiply nineteen hundred years by millions of churches, schools and homes; by millions of books, paintings, and poems; by social position, wealth, and power; by success, triumph and conquest; by love, mercy and truth; by a hold upon humanity unequaled, and by an influence on home and thought unrivaled, and you have another product. The question is, Does one of these products seem to be the equivalent of the other? Does not the outcome surpass by an infinite

degree the income? Is not the evolution out of all proportion to the involution? Has not a great deal more force risen up than seemingly subsided? Is there not much more power seemingly on this side the cross than there was on the other? Manifestly and clearly Christ's life and work can not be accounted for by the principle of the correlation of forces.

Mahomet's success and disciples we can understand. He succeeded by the ordinary methods by which men succeed. He appealed to men's love of fame, conquest, wealth, power, pleasure. He offered men, as a reward for their fealty to him, a great earthly kingdom, and such a heaven beyond the grave as would regale the senses, please the fancy, and gratify the appetites. He simply organized and applied the latent earthly forces already existing in his countrymen. His success is in line with that of Cæsar and Bonaparte. The kingdom which he proposed to establish was merely an earthly, sensual kingdom. His methods were carnal, the motives to which he appealed were sensual, and the hopes which he inspired were carnal. Christ, on the other hand, condemned men's love of conquest, power, fame, riches, and pleasure. He made the conditions of discipleship to consist in the denial of self and in the relinquishment of all earthly hopes, gratifications and prospects. "If you find your life in My Kingdom," said He, "you must lose it in this." He proposed to build up a kingdom as wide as the world and as lasting as eternity, without adopting a single method, or utilizing any of the means ordinarily relied on for success. Not only did He propose a new kingdom, but to populate it with new men, motives, hopes, and conceptions, and opinions. Hence to come into His Kingdom men were to be made over. They were to die to self, to the world, to pleasure. So Christ's work and influence in the world, not only forms an exception to the principle of the correlation of forces, but here we have an unparalleled amount of force rising up when, to all human appearances, none subsided at all.

A poor young carpenter dies. He goes down in ignominy. Amid the jeers and contempt of the multitude, he goes down into the grave. But from that moment commotion begins. Forgiveness of sin in the name of Christ is preached; disciples are

won; churches are built; books are written; civilizations are touched: movements are inaugurated; persecutions bloody and relentless are waged. The fires of hate are kindled, storms from all round the social, political, and religious sky gather, and howl and empty their fury upon the new movement. Nothing impedes it; fire can not hinder it; persecution intensifies it; death does not alarm it. Now we submit, does not such a movement, starting from such a source, and moving out with such vigor, and becoming intenser and deeper as it is extended, form a remarkable and singular exception to the principle we are considering? Is there any rule among men by which it may be estimated and classified and labeled? Can any human, or logical, or philosophical formula or principle, measure the multiform and widely diversified facts in this case? Does it not form an exception to all rules and human methods of measurements? Do we not augment the difficulties of accounting for the work of Christ by minimizing Him, and calling Him a mere man? Is not the easier way to account for Christ's work, to accord to Him all that He claims for Himself and all that His disciples claimed for Him. He said, "All power is given to me in heaven and in earth." If we accept this as true, we can account for His work. But in this view we will see that His life was divine and one with the Father of us all. Then we will see that He was the Son of God, the Word made flesh, the incarnation of the divine mind, and wisdom and power. It is impossible to account for the life and work of Christ by the principles with which physical force and merely human force and thought are measured. The sun is the centre of the system of nature, a system destined to end. Any system the centre of which is gradually losing its force can not last. Christ is the centre of a spiritual system totally different from the system of nature. By all the force the sun parts with to the worlds about it, by so much less has it. It is gradually losing itself, to find itself no more forever. Christ is pouring His force into the system of which He is the centre, but by such a process He is not losing His force, but increasing it. By losing Himself He finds Himself. The universal law of the system of which He is the centre, is the law of communion. The force He gives away comes back to Him augmented by the personality of

all who partake of it. Instead of becoming poorer by giving, He becomes richer. This great truth St. Paul saw when he said, "All things are yours, whether Paul, or Apollos, or Cephas, or the world, or life, or death, or things present, or things to come, all **are** yours, and ye are Christ's; and Christ is God's.

A CASE OF DARWINIAN INFERENCE.—Dr. Pierson points out that men who are very accurate in observation and classification, may be very unsafe in their induction from facts. Witness the following from "The Origin of Species," p. 165: "In North America, the black bear was seen by Hearne swimming for hours with widely open mouth, thus catching, like a whale, *insects in the water*. Even in so extreme a case as this, if the supply of insects were constant, and if better adapted competitors did not already exist in the country, I can see no difficulty *in a race of bears being rendered, by natural selection, more and more aquatic in their structure and habits, with larger and larger mouths till a creature was produced as monstrous as a whale!*" Mr. Darwin was eminently deficient in logical ability. To make out his hypothesis he sometimes forgets even the facts of nature, and makes facts, as in this passage he gives to the cold arctic waters the insects which can live only where there is warmth. But the theory required the fact, and if the latter did not exist so much the worse for the fact.

A LITERAL GENESIS I. IN THE LIGHT OF PRESENT KNOWLEDGE.

[A Paper read before the American Institute of Christian Philosophy, May 5, 1887.]

BY CHARLES B. WARRING, PH.D., POUGHKEEPSIE, N. Y.

THIS story has been in existence a very long time, certainly much more than 2,000 years, and perhaps goes back to Adam. For convenience, and not as indicating any theory, I shall speak of it as the work of Moses.

In the present paper, I propose to ignore all questions but one: Do the physical statements in this story agree with, or contradict, the facts which have been revealed by the labors of astronomers, geologists and others? Is their order the same? I say "physical" statements because the account contains many of a different character; such, for example, as "God saw," or "God said." As science has no means of deciding whether God actually saw or said, these are outside of its field, and I shall pass them over in silence.

The physical statements are quite numerous, and the author of the account has placed them in a certain order. It is within the limits of scientific inquiry to ask whether by any chance they describe conditions which once existed, and events which actually occurred, as well as whether the order in which they are placed, agrees with the real order. These questions are not to be settled by *a priori* reasoning, nor by any theory as to what the account was, or was not, intended to teach, but by its own words, and by comparing what it says with our world's history.

No violence must be done either to science or to Genesis. Its statements must be taken to mean just what is authorized by the grammar and lexicon, and with complete independence of our theological beliefs, or unbeliefs. Our English version is authoritative only so far as it is a perfect translation. In other words, Genesis must be permitted to tell its own story in its own way, and, for purposes of comparison with science, I propose to take it as literally as I do the multiplication table. This is a severe test,

but no opponent can object. I propose to extend it through the first twenty-seven verses. These treat exclusively of matters preceding man, and of which no human being could have any personal knowledge.

In the first verse, we are told that the heaven and earth had a beginning. This anticipates by several thousand years, one of the latest results of modern science, and especially of that new department concerned with the laws of energy. Prof. Tait, in page 26, of his *Recent Advances in Physical Science*, says: "All portions of our science and especially that beautiful one, the dissipation of energy, point unanimously to a beginning." Nor does it require any profound mathematical ability to see that if the resistance of the ether, or the friction of the tidal wave, or the emission of solar heat, had been going on from eternity, our system must have perished countless ages ago.

This first sentence teaches also that God existed before the heaven and earth. In this respect, as well as in affirming that they had a beginning, the Hebrew Cosmogony stands alone. The Chaldean, its source, according to some, says that the heavens and earth, and sea, existed "before the great gods were made."

Passing on to the next few sentences, we read :

And the earth was without form, and void,

And darkness was upon the face of the deep,

And the Spirit of God moved upon the face of the waters,

And God said: Let there be light, and there was light.

Here are four physical statements. I shall speak of them in their order.

One of the results of modern science is the almost demonstration of the nebular hypothesis, according to which the earth was once an unsegregated portion of a vast mass of infinitely attenuated matter. At that time, therefore, our present globe must have been without form, and void of land or water, plants or animals. The reader may, however, claim that "without form" is not, accurately speaking, the meaning of *tohu*. It is of small importance whether the word is so rendered, or whether we take the idea which it more properly conveys, to wit: the idea of lightness, vanity, almost nothingness, perhaps with the additional idea of desolateness and uninhabitableness; in either case, it well

describes the condition of our earth while a part of the nebulous mass.

It will be noticed that the writer is speaking not only of a very early condition, but of one prior to the impartation of motion, for that he places afterwards. Modern science, thanks to its last great discovery, the Correlation of Forces, enables us to say with certainty that prior to motion, darkness enveloped the profound and mysterious deep.

The author of this account also places darkness before motion.

The nature of force, and how it was imparted to matter, are questions too difficult for philosophy to answer. We can only refer them to the same Power that created the heaven and earth. The Hebrew Cosmogony does the same, for we there read that it was the Spirit of God that moved on that dark, primal matter.

There is another radical difference between this and the Chaldean Cosmogony. In the latter there is no force imparted by the gods; heaven, earth, and sea, are already in existence. Their inherent forces produced the great gods.*

But it may be thought that I am leaving the close literalism to which I proposed to adhere, when I apply such a word as "waters" to something so highly attenuated as nebulous matter. Turning, therefore, to my lexicon, I find that *mayhim*, the word rendered waters, is the exact equivalent of our word fluid, being derived from a root signifying to flow, and hence is applied to other substances besides water, that have the common characteristic of being non-solid, mobile, flowing.

Translated then, as closely to the radical meaning as possible, the account will read, "on the face of something which is not solid, but mobile, *i. e.* easily flowing." Taken thus literally, *mayhim*, as descriptive of nebulous matter, is far superior to the word which scientists now employ. Nebula means simply a little cloud; and nebulous, that which is cloud-like. The word is wholly superficial, having reference solely to appearances; while *mayhim* tells of the most important characteristic of such substance. A child, looking at a white fleck upon the sky, might call it a little cloud, but only an astronomer, aided by the most

* See either Smith's or Sayce's translation.

advanced modern appliances, would venture to call it by the Hebrew term.

Matter at rest is of necessity in darkness. If motion is imparted, especially such motion as, according to that eminent scholar, Dr. Tayler Lewis, is here indicated, to wit.: a vibratory, or pulsative movement, the result would be the production of light. The true order, therefore, according to science, is Matter in darkness, Motion imparted, Light.

Darkness.

Motion.

Light.

This order of sequence has been demonstrated to be correct, only since the discovery that the forces of nature are intimately connected—that grand doctrine, the Correlation of Forces.

Next, but with no intimation as to whether much, or little, time intervened, we read that the light was good. "Good," I take it, has no reference here to moral quality, but to fitness and completion. A good farm, a good knife, a good watch, are expressions illustrating its meaning. In the Hebrew, this use was very common. The remarkable thing is the fact that the light is pronounced good before it was divided from the darkness. An incomprehensible thing to any one who, with all the world until recently, believed light and darkness two substances which in the primal chaos were commingled, and, of course, needed to be separated. Modern science—very modern—sees the reason, and shows the correctness of the Hebrew order. We now know that the only dividing possible between light and darkness, is that caused by an opaque body, such as the earth, on one side of which is light, and on the other, darkness. We know, too, from what has been discovered by the spectroscope, that light, although, when first evolved from nebulous matter, poor in color and actinic power, having a spectrum composed of only three very faint lines of color, becomes good light as soon as any considerable part of the nebulous mass attains a density such as that of the sun. Hence our earth, while an unsegregated part of that primal nebula, gave forth poor light, but as condensation went on, the light improved in quality, until, after a long time, the density of its materials equaled that of the sun, and then for the first time the light

could be justly called "good" light, such as we now enjoy. This, science tells us, was long before there was a separation between the light and the darkness, for the intensely hot, self-luminous earth needed to cool till it became an opaque non-luminous body. Until this was done, day and night were impossible. There had been the same axial rotation as at present, but there was not this alternation of light and darkness which we call Day and Night. It was as impossible before this time, as it now is in the Sun. But when a dark crust covered the earth, then the side turned towards the Sun was in the day, while the opposite side was shrouded in night. Then was the first Day, the first of the millions whose long procession reaches to the present. This is what Science, aided by the spectroscope, tells us, and claims as its own discovery.

Turning to Genesis, we find there identically the same order.

First.—Darkness covered the whole.

Second.—Motion was imparted.

Third.—Light appeared.

Fourth.—Light is perfected and becomes "good" light.

Fifth.—A division is made between the light and the darkness.

Sixth.—Day and Night begin, and then was the first day.

It is worthy of notice that these five verses describe a well-defined stage of progress. Commencing with a formless mass of non-solid matter, void of everything, motionless and dark, it ends with a world on which day and night have begun. During the interval, motion was imparted, light was evolved, and, passing through all its stages, became "good" light.

What was the earth's next condition? While it was so hot as to be self-luminous, water existed only as oxygen and hydrogen dissociated, as now in the Sun. As the temperature fell they united, but still the temperature was intense, and the water which they formed took the shape of vapor or clouds; a dense envelop of enormous thickness shutting out the sunlight, and rendering progress in world-making impossible. The next step, therefore, the one absolutely essential, was to reduce the thickness of the cloud-covering, so that light could pass through it to the earth's surface, and a visible heavens would be the token, could

we imagine a spectator watching the process, that the work was done.

Now, if we read what Moses says, we see he, too, places next in order a thinning out, an expanse, in the midst of the waters separating as now the waters under it from those still above it. I note, too, that the close of the process is indicated by the declaration that God called the expanse heaven. The Sun, Moon and Stars shine through upon the earth.

In the common version, we read that a firmament, *i. e.* a firm and solid something, was made in the midst of the waters. But this is so evidently a mistranslation, having no foundation in the Hebrew word employed, or in any word allied to it, that the idea of solidity has been dropped by common consent, and that of expanse substituted. The Hebrew word is *rakia*. It is derived from *rak-a*, and is closely allied to *rak-kak*, both meaning to beat out, or to pound out, as when an ancient metal worker hammered an ingot into thin plates. In no case is the idea of solidity, or firmness, connected with the word, or with any word related to it. Its fullest meaning is its original one, *to thin out with violence and noise.** Taken in this full sense, the word is most graphic. The down-pouring of the waters from the ocean-bearing clouds on the yet hot earth, must have been a process of inconceivable violence and noise.

This, too, forms a period by itself. Unlike the one which preceded it, this was not a period of origins, nor like those that came after it, a period of formations and productions, but it was a time of preparation. Bounded on the one side by the beginning of days and nights, and on the other by the first appearance of dry land, it forms a natural period sharply defined at each extreme.

As yet there had been no vegetation, or perhaps a little towards the close of this epoch, as the waters attained a temperature somewhat near the present. Consequently all the carbon which now exists, as graphite, coal, lignite, as well as all now found in living forms, then existed as free carbonic acid. To this must be added much of that now found in various car-

* See a discussion of this word *rakia*, and all its cognates, by the present writer, in the "Bibliotheca Sacra," for July, 1879.

bonates. All this inconceivable amount was in the atmosphere, rendering it poisonous for all animal life. Not only that, but there were other deadly gases, prominent among which were the various sulphur compounds. The air now contains about one-fifth its weight of oxygen, but then it contained comparatively little, for its oxygen was very largely united with carbon to form the carbonic acid then so abundant. Such an atmosphere as then filled the expanse was anything but good, and Moses does not say here as in so many other places: "And God saw that it was good."

This omission, hitherto inexplicable, is no longer mysterious under the light of present knowledge.

We pass on to the next section of the account, and inquire as to the condition of the earth after the deposition of the waters.

Dr. Dana tells us that at first "the great continents lay just beneath the waves, already outlined" (page 77 of his "Text-book of Geology").

The Hebrew account says: "Let the waters be gathered unto one place and let the dry land appear." This clearly teaches that the dry land had been under water, and that it was now to emerge, and the account adds that it was done.

The Chaldean Genesis, in the tablet from which this portion of the Hebrew account is claimed to have been taken, says: "At that time the foundations of the caverns of rock thou didst make"—and that is all. The rest of the fragment is greatly mutilated. Enough, however, remains to show that it does not speak of any emergence from the waters. It says something about giving a name to the heaven, and something about a mass. It is difficult to see how this portion of the Hebrew account was derived from that tablet.

In the next verse we are told that, in obedience to the divine command, the earth brought forth herbage yielding seed, and fruit trees, whose seed is inside of their fruit.* Geology also tells us that at a certain time—the Cretaceous period—the earth, from some unknown cause, began, without any premonition, abruptly to bring forth such a flora. As Dr. Newbury says in his address

* There is not a word in the Chaldean Myth about vegetation making its appearance. In fact it assumes that vegetation preceded the great gods.

before the Torrey Botanical Club, as reported in their *Bulletin* for July 1880: "From causes which we cannot understand nor even conjecture, the vegetation of the world was at this period of its history (the Cretaceous) more completely revolutionized than at any previous epoch; for here came in the Angiosperms,* by no transition indicated in the record, but by a sudden irruption." Geology tells us, furthermore, that this flora became, in each succeeding period, more and more like the present, until in the Pliocene we find the present flora. Varieties have since been added, but no great or important additions have been made since the vegetable world culminated in grasses and fruit trees whose seed is in the fruit. It is accordingly pronounced "good."

As to what occurred after this stage (geologically speaking, after the close of the Pliocene), there is very little "present knowledge" with which to compare the statements of Genesis. Two facts are, however, established: there was a great climatic change, and while, according to Prof. Dana, there had been, at least in the earlier periods, "no evidence of zones of climate," there is abundant evidence since the Tertiary. This points to a change in the obliquity of the earth's axis at the close of the Tertiary introducing seasons, "zones of climate" and unequal days and nights.†

If this be true (as yet it is not to be considered as anything more than an individual opinion) it accords with the statements that the lights were to divide between the day and the night, and to be for signs and for seasons.

A change of the obliquity of the earth's axis would not affect the months nor weeks, time measures which to the Hebrews and their neighbors were of the highest religious importance. It is quite inconceivable why, in any merely human hypothesis of the origin of this story, they were omitted. Having no "admitted science" with which to compare this stage of work, I pass on to consider the common belief that Moses says God made these lights so late in the world's history.

* Plants enclosing their seed in a fruit. "Trees bearing fruit whose seed is inside of it."

† See, for a full discussion of this question of change of obliquity, an article by present writer in *Popular Science Monthly*, for July, 1886, entitled "Geological Climate in High Latitudes."

Reading the account just as it stands in the Hebrew, I find that God said: "Let the lights in the expanse of heaven be for to divide between the day and the night," etc., *i.e.*, they were already there; henceforth let them take new duties, let them divide (the day of 24 hours) between the day and the night giving each its varying portion. Then I read: "And it was so." They obeyed the fiat. Next comes a parenthetical statement: ("And God made the two great lights—He made the stars also.") In the previous verse the writer records their submissive obedience; in this he claims God to be more than their master, more than the first among equals; He is infinitely their superior; He made them, and placed them in the heavens.

In verse 20th is a command to the waters to bring forth a certain marine fauna and fowl. Whatever else it included, there were in it, by the narrator's own showing, living, moving, vertebrates inhabiting the water and the air in great abundance. Turning on this all the light which geology has given us, we find that it does not describe the first introduction of life in our globe, for that contained no vertebrates, either of the water or the air. Nor does it refer to the life during the millions of years of the Silurian, for although, in its later portion, there were a few fishes, yet there were no fowl. Coming down the record, we find population after population appearing and disappearing, but no fowl, till we pass into the Mesozoic; there we find a population which includes fowl. But at the close of that vast stretch of time, the end of the Cretaceous, "there was, perhaps, the most complete extermination on record—not a species survived."*

During the Tertiary, there were various kinds of fish and other water vertebrates and fowl, but not one of living, moving species, "the moving creature that hath life," for Prof. Dana tells us in his geology that not a fish, reptile, bird or mammal of Tertiary times is extant to-day. I conclude, from a study of Moses' words, that they refer to the living species of this end of the great procession of populations—the vertebrate marine and air species which now exist, and these, according to geology, came after the living fruit trees and grasses, and before living cattle and other land vertebrates.

* See Dana's "Manual of Geology."

As to the work of the sixth period, similar evidence proves that it does not refer to the first land life, nor to any of the successive land populations, till after the Quaternary, *i. e.*, after living marine animals and birds, for the cattle and beasts of that time are nearly all extinct, or, as Prof. Dana puts it, "The mammals of the Quaternary are nearly all extinct."

The teaching, therefore, of Genesis as to organic beings, is silent as to their first introduction, but distinct as to the order in which it places those now extant.

Grasses, herbs and fruit trees precede water vertebrates and fowl of living kinds, and these precede cattle, beasts and other living kinds of land animals. These last shortly precede, or are contemporaneous with, Adam, the man from whom are descended the dominant races. Whether there were other men before him I do not know. Science can as yet give no certain answer.

The physical statements in the first thirteen verses have a peculiar relation to what may be styled basal facts in science. Themselves and their order, exactly as given in Genesis, are of the profoundest importance, as will become evident if we deny their truth or reverse their order.

If the heavens and the earth had no beginning, then heat and light are not exhausting the store of energy in the Sun, the tidal wave exerts no friction on the earth, and no interplanetary ether exists. The whole of that latest department of science, the Dissipation of Energy, is also disproved.

If the earth never was "without form and void," it never was in a nebulous condition. The Nebular Hypothesis is proved false, and Scientists are without any theory of Cosmic development.

If it be not true that darkness covered all things before motion was imparted, then light is neither a mode of motion, nor a form of energy. The Corpuscular, and the Undulatory theory are both false, and Science has no theory as to what light is.

If light failed to become "good" light until after there was a division between the light and the darkness, or until after day and night began their alternations, then the teachings of the Spectroscope, as to the character of light from gases, liquids and solids, are a delusion.

The next stage—the forming an expanse in the midst of the waters—is placed just where the logic of the facts of astronomy and geology require it to be, viz.: after the earth had ceased to be luminous, and before the dry land appeared, and the strange omission of the verdict “good” is approved by the condition of the then atmosphere.

The appearing of the dry land, and the gathering of the waters into one place—one vast basin instead of many—the fact that at a certain time there was an output of herbage yielding seed, and trees bearing fruit, where seed is inside of it, and that both these transactions occurred between certain limits, the same for both, all these are too intimately interwoven with the facts of Geology to admit of denial or change without the most serious consequences.

I submit that an inspection of the record establishes the following facts: (1.) Each physical statement in this account has, whether by chance or design, its counterpart in this world’s history.* (2.) The events to which they happen to correspond are of the highest scientific importance, but were unknown until very recently. (3.) The order in which these statements are placed, is the same as that of the transactions or conditions which they appear to describe. (4.) The sections into which this account is divided by the days, correspond to well-defined stages of development in the world’s history.

All this becomes the more extraordinary when this is compared with any other ancient Cosmogony, and more especially the Chaldean, from which so many say it was derived. A careful examination of Mr. Smith’s translation, and of Prof. Sayce’s, shows only two physical statements that are true. “The foundations of the caverns thou didst make of rock,” is the one, and the other is, in substance, as follows: “The moon first shows a narrow circle of light in the west, which increases till the moon is in the east, and then diminishes as the moon moves back towards the sun.” These are from Prof. Sayce’s translations, and Mr. Smith gives nothing more. To these profound (!) truths, add that the moon measures off the month, and you have all the physical lore that these famous tablets contain.

* As to the fourth day, I would, for the present, leave that an open question.

It has been said that the Hebrew Cosmogony cannot possibly be in accordance with modern science, because nothing was then known of it. No one then knew anything of nebulous matter, or of the nature of light, or of Geology, or of many other matters included in the science of to-day. But I submit that this does not remove, or explain, the fact that here are so many physical statements pertaining to matters of the profoundest importance, which are not only true, but are in the true order of sequence. The ignorance of those days only increases the difficulty of accounting for so remarkable a fact.

The existence of such a narrative presents a problem of the profoundest importance. It touches present knowledge in some forty points. It is impossible that these should have come into their order by chance. The reason revolts at every solution but one. He, who created all things, Himself is the Author of this chapter.

THE PROBLEM OF THE DAYS.

To most persons this is *the* problem, and to pass it over in silence would be to them most unsatisfactory. A careful reading of the chapter, exactly as it stands, adding to it no theories or beliefs of our own, shows the curious fact that in each instance it speaks of divine acts before each day, but of none done on it. It is after the completion of each stage of work, that we read of an evening, and a morning, and a day.

There is a vast stretch from the beginning through darkness, motion, light, day and night, and then we read :

There was an evening and there was a morning.

DAY FIRST.

Then another long period of work completed, and followed by the same formula.

DAY SECOND.

Then millions of years, in which dry land appears, and the vegetation of to-day appears. Both are pronounced good. Then follow the words: "There was an evening and there was a morning."

DAY THIRD.

The sun and the moon begin to measure off unequal days and nights, seasons take their place, making years an obvious measure of time. All is pronounced good.

Then breaks across the current of the narrative the same formula, there was an evening and there was a morning.

DAY FOURTH.

It is unnecessary to go through the story. The days seem to me to be divisional days, breaking the narrative into six great stages. The whole long period is styled "the day" (one day) in the next chapter, and six days in the Commandment. In Genesis I., the days are common days, only 24 hours long, like our national days, July 4, 1776, for example, marking the end of one great division of time and the beginning of another.

In the Commandment, I have no doubt that by that common figure of speech, in which a part is put for the whole, the days are made to stand for the immense periods.

This is preëminently the character of the Decalogue, a part for a whole, or, as the rhetoricians say, the figure called synecdoche runs all through it.

Our great offense is forbidden in each. Murder is put for all acts that tend to, or end, in that crime.

Adultery for all acts of impurity, even conceived of in the heart.

Thefts, for all crimes against property. I might extend these illustrations through the ten commands.

If we admit that this is the true solution of the meaning of the days, literal in Genesis I., figurative in Genesis II., and in the Commandment, the difficulties appear, so far as I can see, to vanish. I submit it to the judgment of those who are scientists in the broad sense of lovers of truth, whether in Nature or Revelation.

VIEWS AND REVIEWS.

SCIENTIFIC SYMPATHY.—Under the title of “Job’s Comforters,” was published some time ago a tractate by Joseph Parker, D. D., pastor of the City Temple, London, and member of the American Institute of Christian Philosophy. It is reproduced in CHRISTIAN THOUGHT by request. It will amply reward perusal.

If we were required to name the most prominent men of science in England to-day, amongst the names that would first occur to us would, of course, be Professor Thomas Huxley, F. R. S., and Professor John Tyndall, F. R. S.

What Dr. Tyndall or Dr. Huxley is to science, John Stuart Mill may be said to have been to philosophy. All the world has read his “Logic,” tens of thousands of delighted students and statesmen have perused his “Political Economy,” and his essays in general literature are as widely known as the language in which they are written. Yet, great and eminent as these men are, and must forever be in the estimation of intellectual men, it is a mere matter of fact, and not of thoughtless inference or sectarian prejudice, that they are not identified with what is commonly understood by the expression, Spiritual Religion. I am not prepared to say that they would assume the hostility of positive belief; they would rather suggest that nothing can be known of the invisible, or what is called the supernatural and divine. They would not receive any book, say the Bible, as the revelation of the supernatural being. Probably they would say, in substance, If there is a God, we do not know Him. He has not come within the limits of our apprehension and experience; and we know nothing of the value and authority of any revelation of Himself which He is supposed to have made. This they would not say flippantly, or with any idea of bringing the faith of other men into contempt; they would put forth the statement as a personal decision, and not as a challenge to controversy, or a reproach upon the credulity of other people. Dr. Tyndall distinctly says that there is a secret in nature which

science has not explained ; and John Stuart Mill has in his posthumous essays said some pathetic and morally beautiful things of Him who is worshiped by Christians as the Son of God and the only Saviour of mankind. Still, it must be admitted that Dr. Tyndall, Dr. Huxley, and Mr. Stuart Mill, stand quite outside the Christian circle, so far as it includes a supernatural person, a supernatural revelation, a supernatural redemption, and a supernatural regeneration of the human heart. They claim to live within the limits of objective knowledge, and distinct personal experience. That I may not seem to put unworthy words into the mouths of illustrious men, let me give a quotation or two from their own writings :—

Dr. Tyndall says : “ The mind of man may be compared to a musical instrument with a certain range of notes, beyond which, in both directions, we have an infinitude of silence. The phenomena of matter and force lie within our intellectual range, and as far as they reach we will, at all hazards, push our inquiries. But behind and above and around all, the real mystery of this universe lies unsolved, and, as far as we are concerned, is incapable of solution.”

Professor Huxley says : “ Why trouble ourselves about matters of which, however important they may be, we do know nothing, and can know nothing ? We live in a world which is full of misery and ignorance, and the plain duty of each and all of us is to try to make the little corner he can influence somewhat less miserable and somewhat less ignorant than it was before he entered it. To do this effectually, it is necessary to be fully possessed of only two beliefs : the first, that the order of nature is ascertainable by our faculties to an extent which is practically unlimited ; the second, that our volition counts for something as a condition of the course of events.”

This is my text. I intend to turn those two beliefs to practical account, and to test their consolatory value in a concrete instance. I must ask to be allowed the privilege of dramatic license, only giving you the assurance that in thus using great names nothing can be further from my intention than the least degree of personal disrespect. Professor Huxley says that the “ world is full of misery and ignorance,” and that to reduce the

amount of ignorance and misery effectually only two beliefs are necessary—and those two beliefs relate to the order of nature and our own volition. Nothing more is required: natural law and human volition, properly understood and exercised, are all we need. It is my business now to dispute this, and I will conduct my side of the disputation in the form of a parable.

There was a man in these latter days whose name was Job; the same was a follower of Jesus Christ, and his delight was in the law of God, from whom was all his expectation. Job went among men as one who ceased not from prayer, nor hesitated to declare the sufficiency and joyfulness of a life of faith in the Son of God. Day by day he blessed his bread in the name of heaven, and set the Lord always before him as the source of his strength and the giver of every good gift. And unto Job were born sons and daughters; and as for his wheat-fields and orchards, they were fruitful beyond measure. And it came to pass that a sudden blight fell upon the whole fortune of Job, and that Job himself was bowed down in weakness and in great fear. His children perished out of his sight, and his ground brought forth abundantly no more; and it was as if God had forsaken him in unexplained and terrible anger, and given him over as a prey to the enemy. Yea, his wife also spake not a word of sympathy, but talked of death as the only release from grief so unendurable. Now, when the new leaders of human thought heard of all the evil that was come upon Job, they came every one from his own place: Huxley the Moleculite, John Stuart the Millite, and Tyndall the Sadducee. And when they lifted up their eyes afar off and saw Job, more a shadow than a man, they whispered to each other, "This comes of religious faith," and they hastened toward him with swift feet. So they sat down beside the shattered man, and in less than seven seconds Stuart the Millite began, metaphorically, to throw stones at his bewildered head.

"Just what might have been expected," said he; "this comes of your star-gazing, and of reading the patriarchs, instead of watching the markets. I always say that a man brings all this sort of thing upon himself; and that as he makes his bed, so he must lie upon it. Be your own god, and then pray as much as you like. Humanity is divine."

But Job answered and said: "O that my grief were understood, and that ye could heal the pain that is in my heart! for then would I bless you as those who speak wise words. Behold, this cometh not of mine own hand; for wherein have I dared the Most High to overwhelm me?"

Then answered Huxley the Moleculite, and said: "Cease from thy languishing, nor let thy repining any longer be heard. Understand thou that this disturbance is entirely molecular: by some means or other the molecules have got into a disordered condition, and that singular whity-brown fluid found in the heads of human animals has become a little addled, diluted, or otherwise injured, and hence these phenomena. All animal life is more or less subject to this visitation; and, viewed scientifically, yours, Job, is a singularly beautiful case."

Whereupon Job moaned in the bitterness of his soul, and cried, saying: "O that my children were about me as in the days that are gone, and that I could recall the light which made my home a scene of gladness! If not, would God I might die and be at rest! My children! my children! whence have ye fled from me?"

Then answered Tyndall the Sadducee, and said: "Thy children have melted into the infinite azure of the past, as all living things must melt. They have gone again to the dust; but in their decomposition there will be liberated gases and other elements, which, mingling with the general chemistry of nature, will contribute somewhat to the nourishment of animals and plants; and in this way the decomposed children of Job will be of great use in the chemic economy of the universe."

Then was Job full of indignation, and his soul was overwhelmed within him. "Miserable comforters are ye all," said he; "and yours is the wisdom of fools. Have ye seen sore trouble, and has your day suddenly been turned into night, or have your eyes stood out with fatness, and your souls been long at ease? Know ye what it is to be carried away as with a flood, and to be thrown down as with an irresistible arm? Your words are strange to me, and your speech without savor."

Then answered John Stuart the Millite, and said, "Are thy children more than the children of other men that they should

live forever? Reform the sanitary arrangement of the country, return a thoroughly representative parliament to St. Stephen's, give woman the franchise, and let all leading articles be signed by the names of the writers, and then we may look for better health, higher wages, and more general comfort. This you may call utilitarianism, but I call it common sense."

And Huxley, the Moleculite, said: "Why grieve for children, and why moan and groan over the inevitable? You should take a scientific view of all things. What my friend the Sadducee has said is strictly scientific. We live one upon another all through and through creation. We find the origin of protoplasm in the vegetable world: the plants drink the fluid containing carbonic acid, water and ammonia, and thus maintain themselves in vigor; and then the animals, in their turn, eat the plants, and perform a high feat of constructive chemistry by converting dead protoplasm into the living matter which is appropriate to itself."

Thereupon, in paternal anguish and rage, Job smote Huxley the Moleculite to the ground, and Tyndall the Sadducee exclaimed: "Why this, O Job?" And Job answered in bitter sarcasm: "The molecules! And God do so to me, and more also, if I smite you not one and all for your madness and cruelty. O my children! my children!"

But Huxley the Moleculite, and John Stuart the Millite, and Tyndall the Sadducee reasoned with Job, and besought him to restrain himself, and offered to lend him their complete works to while away his childless hours and his consuming sorrows. Moreover, Tyndall the Sadducee answered and said: "We are the founders of a new school; we are the valiant leaders of the new age, and we are prepared to suffer, if need be, a good deal of advertisement, and are even willing to risk all the consequences of a remunerative circulation of our books. Let me speak to thee, I pray thee, nor let thine anger be too hot."

Then Job answered, "Say on." And when Huxley the Moleculite had retired from Job according to the square of the distance which formerly separated them, Tyndall the Sadducee opened his mouth and said: "What is thy complaint, and what is thy desire, that we may answer thee?"

And Job answered: "My complaint is that I am sore wounded, and that my life is impoverished and filled with woe. The delight of mine eyes is taken away, and no longer is mine ear filled with music: and they that knew me turn away from me, and they that understood me are numbered with the dead. O that I might have my request, and that God would grant me the thing that I long for! Even that it would please God to destroy me; that He would let loose His hand and cut me off! Is there not a God in heaven, and is He not King over all the earth? Why is His hand heavy upon me, and for what reason hath He shut up my soul in darkness? Answer me, if ye have understanding."

"We will answer thee," said the Sadducee, "and let thee know the measure of our wisdom. We have stretched our minds across cosmic spaces and cosmic periods, and have seen the sufficiency of matter to grow and recombine and produce startling effects: we have seen nothing, indeed, of which matter is incapable: it seems to be its own secret and its own origin. Still, there is an inscrutable power somewhere; we know nothing about it, neither does any man. There is, we own, a secret which we cannot make out; and our resolution is never to attempt its explanation. For my own part, I have not even a theory of magnetism, much less a theory of the universe. Let us keep within our own limits, and lay down our work at the call of Nature. Be quiet. You are in trouble; you have lost your children; your high social state is gone. Be it so; take these things philosophically, and don't let your courage fail you."

"Beside," added John Stuart the Millite, "as our knowledge of nature extends we shall get command over disease and even death itself. When public baths are more known, and appreciated, and the higher education of woman is advanced I imagine we shall dry up nine-tenths of the trouble of life."

"O fools and hard of heart!" said Job, "have you no more answer to my grief than this? When a man's life is desolate, will a theory of magnetism recover his comfort and peace? When he has discovered the tomb in the midst of his garden, will hydropathy make his heart glad with unspeakable joy? You

tell me that there is a secret in the universe which you cannot explain: but because *you* cannot explain it, is it, therefore, impossible of explanation? There is a stone which I cannot lift; does it, therefore, follow that no other man can lift it? Is there healing for my body, and none for my soul? Is there bread for my physical hunger, and no food for the fiercer hunger of my heart? You mock me: you wish me to give the lie to my own consciousness; you tempt me to commit spiritual suicide! Miserable comforters are ye all!"

"Still," said Huxley the Moleculite, with chastened air, "we must be scientific. Let me lay it down, that matter and spirit are but names for the imaginary substrata of groups of natural phenomena."

"And pray who told you that?" said Job. "You chatter great words with glibness, and make fine speeches, but you find for me no fountain in the wilderness, nor can you assuage the swelling of my woe. Is there not something deeper in life than you have yet touched? A wounded spirit, who can bear? Will not God hear me when I cry, or will He hide Himself from my approach? Can a man live upon the wind, or satisfy himself with hard words, or rest his head upon the sharp rocks? Have you had pain like mine, or have you lived in gayety, and sat at the table of plentifullness? When did the lion rend you, or the wolf lie in wait for your appearing? Ye know not whereof you affirm, else would your speech be chastened and your words be few."

Then up rose Tyndall the Sadducee, and hastily said: "Should not the multitude of words be answered? And should a man full of talk be justified? Let me ask Job a question or two that may comfort him in a rational and not in a sentimental manner. What is the vegetable world but the result of the complex play of molecular forces! What is it which tears the carbon and the hydrogen from the strong embrace of the oxygen? Is it possible for the undeflected human mind to return to the meridian of absolute neutrality as regards ultra-physical questions? Let Job consider these, and a million similar questions, if he would be really comforted. Let him read Fichte in the morning, and commit Emerson's poems to memory on Sundays,

and always keep by him a good translation of Plato ; and, above all, let him doubt those who pretend to see, in cholera, cattle-plague and bad harvests, evidences of divine anger. And now that I am speaking I will make a clean breast of it at all hazards. Prayer is wasted breath. The law of gravitation crushes the simple worshipers in the Methodist chapel while singing their hymns just as surely as if they were engaged in a midnight brawl. Job must hold his feelings in control. Let the Moslem give way to them in his battle-cry, and the red Indian wake the echoes of his hunting-grounds with such wild howls ; but when Job can attend scientific lectures at the Royal Institution, or take a course of evening lectures at the School of Mines, he ought to conduct himself in a rational way in time of misfortune, and show himself to be a philosopher."

Then answered John Stuart the Millite, with unusual warmth : "I, too, have been in trouble, but I needed no sackcloth, nor scattered I any ashes on my head. I took a philosophic course. I mounted a philosophic steed and sped away from my trouble. If Job will hear me, he shall know how to keep distress under his feet, and to defy the threatening storm. What time I am afraid I flee to metaphysics, and when conscience threatens to get the upper hand of me I consider the functions and the logical value of the syllogism. When my father, who would never *allow* me to have any convictions about religion different from his own, melted into the infinite azure of the past, I comforted myself under such melting by testing Berthollet's curious law—that two soluble salts mutually decompose one another whenever the new combinations which result produce an insoluble compound, or one less soluble than the two former ; and the comforting effect of the experiment was remarkable—so much so, that, in an ecstasy of scientific surprise and delight, I almost wished that he had melted sooner, that I might have had longer possession of this prize. O that Job would do something of the same kind ! He would forget the past in a trice, and be as happy as I am. Let me put you in possession of a secret, if by doing so I can rally the dejected Job. When I die there will be found in my desk the manuscript of my autobiography ; and so sustained was I by philosophic reflection during its composition,

that never once in its pages have I mentioned my mother ! Nobody could know from my autobiography that I ever had a mother ! That is what I call self-control ! Other people talk of their mothers, and their mothers' influence, and their mothers' prayers, and their mothers' example, but I never own the relationship ; I keep on the airy highlands of philosophy, and avoid the close and relaxing valleys of sentiment. Once, indeed, I was about to give way to the common folly ; but I recovered my self-restraint by showing the fallacious reasoning which has been founded on the law of inertia and the first law of motion, and I never lost my balance again. If Job would take some such course, his grief would be forever dissipated."

And to the same effect Huxley the Moleculite, who had insensibly increased his distance from Job : " I have often steadied myself under a stunning blow by remembering that protoplasm, simple or nucleated, is the formal basis of all life. This has been a great comfort to me in many distresses. When death has invaded the household of any of my friends I have always proved to them that all living powers are cognate, and that all living forms are fundamentally of one character, and they have invariably thanked me for my sympathetic and consolatory expressions. One dear old friend of mine, who suddenly lost all his income in a railroad crash, would, I believe, have died of a broken heart, had I not asked him to compare in his imagination the microscopic fungus—a mere infinitesimal ovoid particle—with the gigantic pine of California, towering to the dimensions of a Cathedral spire ; and my friend no sooner complied with my request than in a wave of victory, as Tyndall the Sadducee would call it, he was lifted far beyond rolling stocks and permanent ways with their fickle dividends and treacherous attractions. It is very pleasing to me to find that there is in science that which will heal ' a mind diseased.' Job, be encouraged by our words ; rest upon them as upon a sure foundation ; and in passing through the various experiences of life, always remember that a nucleated mass of protoplasm is the structural unit of the human body. This you will find a catholicon for human ills."

Then Job arose from the ground and turned his face toward the heavens, nor spake one word to those who offered him stones

for bread. In his eyes were standing great tears, and on his countenance was the stamp of unutterable grief. Then the Lord took up his cause, and answered his comforters out of the whirlwind :—

“ How old are ye, and what is the measure of your days ? Ye mighty men and mocking comforters, answer me, that I may know the strength of your understanding and the dignity of your judgment. What will happen on the morrow ? And can you, who are unable to turn over a single page of passing time, read all the volume of eternity gone, and comprehend the measure and the reason of all things ? Is the universe without a maker, a guardian, a friend ? Are there no boundaries set to power, and is there no watch appointed over ambition ? Can the eagle soar quite into the sun, or build his nest amidst the forests of the stars ? Can any man deliver his friend in the day of death, or travel with him into the great waters and return from the gulf ? Is there no angel of mercy spreading mighty but gentle wings over all the world, sending the seasons in their course, the rain in rich showers and the fire to warm the earth of all summer long ? Are there no mysteries in life which make you pause and for a moment turn your flippancy into, at least, an appearance of sobriety ? Know ye the invisible bonds which keep you within an appointed sphere ? Can you shut your door upon those powers which wither your pride, and take away all the sap of your strength ? You call Me a Secret and an Inscrutable Force, and you deny My power to reveal Myself to the children of men. Who *are* you that you should set yourselves against Moses and David, Ezekiel and Daniel, John and Paul ? You have told my servant Job what you can do in the hour of human darkness and sore distress, and behold your helplessness and the vanity of your strength ! ”

Then Job cried aloud “ Though He slay me, yet will I trust in Him ! He hath been with me in six troubles, and in seven He will not cast me off. Shall not the Judge of all the earth do right ? Miserable comforters are ye all, though ye are the men, and wisdom will die with you ! When you have exhausted your petty science, what have you told me that can touch the agony of my heart, or bring back the light of my house ? If *your* theory

be right, why should I suffer all this misery when, in a moment, I can end all my distress? If this chastening be for no higher good, why should I not interrupt it by an instant destruction of my consciousness? You mock me, but you have no satisfaction for my heart. You throw hard words at me, but you have no balm for my healing. Ye are as a bowing wall and a tottering fence: I will not lean upon you. The Lord is my light and my salvation. I had fainted unless I had believed to see the goodness of the Lord in the land of the living. O Lord! Thou hast brought up my soul from the grave; Thou hast kept me alive that I should not go down to the pit. Thine anger endureth but a moment; weeping may endure for a night, but joy cometh in the morning! I said in my haste, I am cut off from before Thine eyes; nevertheless Thou heardest the voice of my supplications when I cried unto Thee. Lord, open the eyes of these men that they may see my defense as Thou seest it!"

And the Lord opened the eyes of the leaders of science, and they saw, and behold the mountain was full of horses and chariots of fire round about Job; and the Lord opened their ears so that they heard voices other than of men, saying: "The chariots of God are twenty thousand, even thousands of angels: the angel of the Lord encampeth round about them that fear Him, and delivereth them; He shall give His angels charge over thee to keep thee in all thy ways. The Lord of hosts is with thee, the God of Jacob is thy refuge."

And the heart of Job was lifted up in praise, and through the sob of his woe there came forth alleluias unto the Lord. Yea, he magnified his God and praised Him with many psalms: "Bless the Lord, O my soul! and all that is within me bless His holy name. He healeth the broken in heart, and bindeth up their wounds; He is the God which fed me all my life long unto this day; the angel which redeemed me from all evil. I know that my Redeemer liveth, and that my loved ones are standing before Him, glad in His light and beautiful in His holiness! Praise the Lord!"

And it came to pass that Job's three comforters—Huxley the Moleculite, Stuart the Millite, and Tyndall the Sadducee—gathered together their inaugural addresses at the British Asso-

ciation, their lectures at the School of Mines and the Royal Institution, their dissertations upon the ballot and the higher education of woman, and returned with them to their several places. And it came to pass as they journeyed that they came near to a beautiful stream, spanned by a suspension bridge, nigh unto which there nestled the thatched cottage of a ranger in the woods.

"That," said Stuart the Millite, "seems to be an ideal house, though so simple and unpretending. How clean the place is and sweet looking, and how these tangled flowers on the front brighten it and give it quite a jewelled appearance! and a beautiful peep of the river must be caught from that western window."

And it came to pass, as they drew near to the house, that the ranger in the woods leaned himself against an aged tree, and seemed as if he did so in heaviness of heart. And it was even so, for, lifting up his eyes and seeing three men bearing many books, he said unto them :

"Be ye learned men who can tell what to do when we are dizzy and senseless?"

"Perhaps, indeed, we can help you a little," said Huxley the Moleculite; "at any rate we are quite willing to try."

"Come with me, then, and see what is in the house. I lost her mother but a twelvemonth since, and now she's slipping away."

But Huxley the Moleculite, and Stuart the Millite, and Tyndall the Sadducee shrank from the man; and in remembrance of the sufferer they had left, they dared not to speak of the sympathy of science.

"But mayhap you will pray with the child, and not pass by her on the other side. In such books as yours there must be something for broken hearts like mine. It is but a step or two to the girl's bedside. Come!"

"It would be but wasted time, my friend," said Stuart the Millite, "for we have no power over the laws of nature."

"But cannot you speak comfortably to the child, for she says the river is very cold, and, bless her, her feet are very young?"

"You are not so very near the river, my friend," said Stuart the Millite. Whereupon the man turned away and answered with a great sob.

And it came to pass, as the leaders of science had gotten away to the height of a distant hill, that they laid down their books and rested awhile. And presently Tyndall the Sadducee opened his mouth and said : " We have been out of our depth to-day, and, perhaps, we have no business along this road at all. These books of ours are invaluable in their places, and very likely they are indispensable to the higher education of the world ; but there are two men along this road, who, somehow, need something that we have not got to give them. It is no use concealing the fact, or making it look less important than it is. I wish a great poet would arise who could sing these woes to sleep and charm us out of our ill-fortunes."

And it came to pass that the Lord turned the captivity of Job and made him glad with new joy : yea, He crushed for him the finest of the grapes, and gave him wine with His own hand ; and upon his wheat-fields and orchards He sent the benediction of sun and shower until their abundance returned and was multiplied. And Job rebuilt his altar, and bowed down before God with all reverence and love, and sang the praise of the Most High with a loud voice, and made a joyful noise unto the Rock of his salvation. And in the day of his prosperity Job sent for the books of Huxley the Moleculite, John Stuart the Millite, and Tyndall the Sadducee, and read them all with an attentive eye. Then he rose up and said : " O wise, yet foolish men ! your books are full of knowledge and instruction, and mighty men are ye in the field of learning. But have ye forgotten that there is a spirit in man, and that the inspiration of the Almighty gives him understanding ? Know ye the way into the heart when it is in ruins ; or can ye lift up those who are pressed down by the hand of God ? Keep your learning in its proper place, and it will help the progress of the world ; but attempt not with it to heal the wounds of the heart. Not to your wisdom, but to your simplicity will God reveal Himself ; He hath hidden Himself from the wise and prudent, and shown forth His beauty unto babes : even so, Father, for so it seemed good in Thy sight."

And the woodman's little girl ? Was the river so very cold when her young feet touched it ? We cannot follow far along that drear road, nor see far into that great darkness. But there

was no splash in the water; there was a quivering in the arch which spanned it, from which the ranger knew that his child had been taken, not through the river, but over the bridge, to the mountains of myrrh and the hills of frankincense.

Long years after the woodman would tell how, in the black night, his sweet child closed her thin hands, and, looking up to heaven, said, "Not my will, but Thine be done!" and how she turned to him and said, "Father, give me one long kiss: I am dying." On the wall were three strange shadows, cold when touched, dumb when spoken to; and then the woodman knew what it was to be ALONE.

My soul, when that night darkens around thee, and the last star of human comfort fades out of sight, may there bend over thee "*One like unto the Son of man.*"

LAW AND MIRACLE.—President Magoun, of Iowa College, contributes the following views to the CHRISTIAN THOUGHT:

In the Duke of Argyll's very admirable article, in the *Nineteenth Century* for March, are some observations on the relations of miracle and physical law which, it seems to me, are not so clearly thought out as the rest of the article.

It is very clear that there are uniformities in nature of a lower, and others of a higher, kind, and that it is proper enough to call them lower and higher *laws*, if it is proper at all to call uniformities *in nature laws of nature*. Why we apply the terms "higher" and "lower" to such things is very well explained by the duke. The article is entitled, "*Prof. Huxley on Canon Liddon.*"

"It is strange that the Professor does not see that this idea of rank and precedence among the laws of nature is directly connected with the prominence of that mental element in them which his own philosophy, in some aspects, seems to dwell most upon, and almost to exaggerate. The higher we place the mental element in our conception of natural laws, the more

obvious is it that we have a scale by which to estimate their relative rank in the order of nature. *Those are the lower laws, which the lower and simple faculties of our own minds are sufficient to reach, and, in a measure, understand. Those, again, are the higher laws of nature which none but the higher faculties of our own intellectual organization are competent to grasp or to comprehend.* This competence depends on a relation between the law and the faculty which apprehends it."

Now this is sufficient for the purpose, though it does not tell us why we call one faculty higher than another, as we all do. It is only added: "If the Professor denies that even in our own mental constitution there are any faculties which are lower or higher than another we can only appeal to the universal instincts of human consciousness, and leave him to his paradox." There is a trace, here, of that overloading of consciousness, and assigning to it acts that belong to other faculties, which is carried to so great an excess in certain circles, and injures the thinking and writing of far wider ones. Plainly, it is the human judgment, and not consciousness at all, that decides all questions of higher and lower, while consciousness simply reveals the faculties whose relative rank is judged. But, to pass this, the laws of nature are not known to be higher or lower by consciousness, but by judgment, which follows the rule of rank recognized in assigning rank to the faculties. "The law of gravitation, which pulls a man's body to the ground, is unquestionably a much more simple and elementary law than that which is expressed in the energies of the human will working through the wonderfully complicated machinery of his organic apparatus." But all this is said in support of Canon Liddon's remark as to "the suspension of the lower law by the intervention of a higher," "every time we lift our arms we defy the laws of gravitation" (Qu. law?), etc.

Someone may ask: "Does our estimate of the relative rank of a law of nature (itself determined by our estimate of the intellectual faculties competent to grasp or comprehend it) suspend it?" Has "an intellectual conception higher in the scale of rational order,"—whether as to our faculties or as to the uniformities of nature,—competency to this effect? But a better question is, as to miracles, is this the real explanation of their occur-

rence—that a higher law suspends a lower one? That is, a higher uniformity of nature interrupts or makes an exception to a lower one. Granted, that if the healing of the sick or the raising of the dead by a word is a “uniformity” at all, in nature or outside of it, a higher one it must be. But who knows that there is any such uniformity *anywhere*? And if not, by what right or propriety of language is it termed a law? If the conception is of an “unseen universe,” in which wonderful works, like those of Jesus Christ on earth, are orderly and regular occurrences, and this world unseen so connected with our world that its uniformities can displace the ordinary ones here of disease and death, by what method are these higher uniformities discovered? Obviously, the accepted meaning of the word “low” as to nature excludes all knowledge of such higher uniformities concealed commonly behind the lower ones of nature, and the limitation of our faculties excludes any discovery of them as prevailing in an unseen world.

But the Duke of Argyll, in defense of Canon Liddon, takes into the meaning of the word “law” something else than law, competent to suspend a (lower) law and therefore called a higher one. He says: “It is quite true that the word ‘law’ is often used in science for a mere observed order of facts, without any element of causation to which that order can be traced. But it is not true that this is the only sense in which the word ‘law’ is used in modern science. Very often it is used not only as indicative of an observed order of facts, but also as indicative of some force which accounts for that order and determines it. For example, Professor Huxley’s definition will answer tolerably well for the famous ‘Three Laws of Kepler’ in respect to the planetary motions. Those laws were an observed order of facts, and nothing more. But this definition does not apply to—at least it is not adequate or complete as a definition of—the law on the same subject which was subsequently discovered by Sir Isaac Newton. That law indicated not only an observed order of facts, but it indicated a causal connection between the facts discovered by Kepler, and some facts to which that observed order had been really due, and of which the Kepler Laws had been a necessary result. It is, of course, true that the law of

gravitation is itself not an ultimate truth, and that, as it accounted for the Laws of Kepler, so itself also needs to be accounted for. But none the less is it clear that it contains an element which Kepler's Laws did not contain—even an element of causation, the recognition of which belongs to a higher category of intellectual conception than that which is concerned in the mere observation and record of separate and apparently unconnected facts." This in opposition to Prof. Huxley's proposition that the law of gravitation "is a statement of the manner in which experience shows that bodies which are free to move do in fact move towards each other."

Here is the idea of force added to and combined with that of uniform order—a force producing the order. That a law is not a being endowed with certain powers, by virtue of which the phenomena expressed by that law are brought about" had been affirmed by the Professor and assented to by the Duke. Nevertheless, the latter insists, there is, there must be, some power bringing them about; some power in action, or "force," between which and the facts there is "a causal connection;" and now he stretches the meaning of the word "law" to cover it. This is not good analytic thinking, though it may be a fair enough account of the use of words in popular speech and even in science. But let it be noticed that it is by the bringing in of this other element of force that the Canon and the Duke affirm "the suspension of a lower law by the intervention of a higher." The facts are not produced, obviously, by any formula of their observed order,—this order itself is the product of the same force, or power in action, as are the facts themselves. The term gravitation is a large word which loosely covers these facts, this force, and the order which is commonly formulated—three distinct things. (See *Bibliotheca Sacra* for April, 1885; Review of *Drummond's Natural Law*, etc.; and *Boston Lectures on Scepticism* for 1872.)

But neither the facts nor the observed and formulated order has the causal element which belongs solely to a force. It is very true that when Professor Huxley explained how we lift our arms (*Nineteenth Century*, February, 1887), he simply tells us that more force tends to drive it upward than that which is working

to bring it down—more of “the general store of energy in the universe,”—and he does not tell us at all how there comes to be more tending that way. And the duke may well complain of confounding under one common abstraction the movements due to gravitation and the movements due to the “mind of man.” Nevertheless, more force is indispensable to the raising of the arm. Less force exerted under the direction of the mind will fail, and then the force covered by the word gravitation (and, as the duke asserts, by one of the meanings of the word law), will hold it down. It is not a case of higher uniformity—an *unobserved* order of facts suspending an observed order, but of a greater force prevailing over a lesser one,—just this. (Cf. on the words, *The Reign of Law*, by the Duke of Argyll.)

So a miracle cannot occur save by a superior exertion of force, or power in action, and with this it can. Nothing easier. We do not call the lifting of an arm, the rise of sap in trees and plants,—in one of which as well as in the other, a stranger force produces its effect spite of a weaker one (or, as the Professor’s phrase is, a lesser portion of “the general store of energy in the universe”)—miracle, because these facts are included in the observed order of facts. Each is uniform. If anything is to be said of a higher *law* suspending a lower, here is the place to say it. But the lower is not at all suspended. The arm, the sap are not “free to move” downwards. The force of terrestrial attraction acts that way, and, with precision, according to formula; but it is the weaker. The duke says well: “Gravity is not defied, it is simply used. It is not treated as an enemy, but as a servant yoked to work.” It steadies every upward movement of material things, by whatsoever force elevated, and when this force becomes less than itself, arrests it. And uniform as any other result of physical force may be, it goes without saying that a mightier one can any moment prevent it. Argument is needless to show that the creator and lord of nature can at any time, for a good and sufficient reason, change it by miracle or by a new and different course of nature. If He ever comes in the flesh, He without whom not anything was made that was made, He can make a new thing in the earth. He can say to one bound and bowed by infirmity eighteen years, “Woman, thou

art loosed." What uniformity *established by Himself* can prevent Him? Can not this be interrupted without being abolished, and, beside and after His mighty works, all go on in providence as before? Standing by the grave and releasing the sleeper in it from the greater bonds, can He not say of the lesser, "Loose him, and let him go?" And may it not be the plain, historic, matter of fact record of Himself afterward, "whom God raised up, having loosed the pangs of death, because it was *not possible that HE* should be holden of it?" For why should it be thought a thing incredible that GOD should raise the dead? Can philosophy or science say it is? On what grounds of experience, observation, or reason? Adequate power and worthy motive must be disproved first. The Scotch nobleman whom I have criticised—with great respect for his ability, character, and services—says well of the English man of science whom he criticised: "In the muddy torrent of bad physics and worse metaphysics which has been rushing past us under the name of Darwinism, Professor Huxley has kept his feet." And every man is to be commended who in the loose declamation and indiscriminate clamor against the facts of revelation, calmly and resolutely remembers that Law is no preventive of Miracle, any more than the original miracle of Creation was of Law, when the author of both sees best to introduce the one as a wise variation from the other. But let him not ascribe to Miracle the character of uniformity that constitutes Law (in the scientific sense), a character which certainly does not belong to it in this world, and as certainly we cannot possibly know as belonging to it in any other. Even if it does, it cannot be that any law has an ability as uniformity to suspend a lower one, which, if it were to occur, must be due to the power, personal, intellectual, and moral, that causes all uniformities, and may, with adequate motive, either for a time, or permanently, displace them. To ascribe a miracle, then, to an imagined and powerless uniformity seems to me the weaker statement of it, and one which cannot bear analysis; while to ascribe it to that power which presides over and causes both rule and exception, and always acts from sufficient reasons, seems to me the stronger and sure to prevail.

In the *Contemporary* for April, Mr. Richard Holt Hutton, a

writer of established repute on philosophical theology, says " of the new science and its relation to what has been called miracle : " " Theoretically, as all the best scientific minds are agreed, there is no contradiction at all between the principle of the uniformity of the law of causation and a very marvellous interruption of the ordinary course of nature. All that is proved by such an interruption is the intervention of some new and unexpected cause. How inexhaustible is the number of unexplored causes, no man knows better than the true man of science." It ought to be now well settled, as against Hume, Mill, and the rest, that mere antecedency in time is not causation, and that the exclusion of adequate force, or power in action,—*i. e.*, concrete power adequate to compel an effect, from the meaning of the word cause, leaves it without distinctive meaning. We all know that we intuitively supply the idea of power when we observe an antecedent compelling an effect, and we know empirically that the withdrawal of concrete adequate power in action from a cause defeats the effect, and leaves it no antecedent at all. " The intervention of some new and unexpected cause " in the case of raising the dead, is simply, so far as the course of nature is concerned, the intervention of a power in action adequate to interrupt it; and this the power of the Author of the course of nature put in action to that end, for good reasons, must unquestionably be. It is, therefore, a case of causation still, just as much as the ordinary course of nature, though not in the line of this course. But this is only saying that when the Supreme Power which originated all the forces of nature, and set on foot all its uniformities thereby, intervenes to produce an effect never included in these uniformities and never produced by these forces, it certainly will compel a new effect, though not by destroying either uniformity or force. But this is only a statement of the very law of causation involved—a new causation, but not a new uniformity, unless the interventions, *as distinguished from power or causation*, are themselves known to be uniform. But this is plainly impossible. There is, then, no suspension of a lower uniformity by a higher one, there being no higher one. The fact that adequate power always compels its appropriate effect, unless thwarted by superior power adequate to thwart it, as in the

rising of sap, is not a uniformity of nature, whether lower or higher, but the very principle of causation. Power produces alike all uniformities and all exceptions to them. It is not even a case of spiritual law in the natural world, much more not of the reverse. Power, we say, produces uniformity, rather than follows it. Power is above uniformity and intervention alike, *i. e.*, above both law and miracle, producing both. There is then, really, no higher law of causation in a miracle, but simply causation, for sufficient reasons. And that supernatural power above nature and miracle acts in both for such reasons is not the higher law affirmed as suspending a lower one, for this obtains in nature as well and as much as in miracle. Nor is it ever good thinking to imagine that a mere uniformity—real or imagined—in the action of power produces the effect which power alone can produce. Power, then, adequate to it, is that without which miracle cannot be, as it cannot be without sufficient reasons; but is “a higher law” anything more than a form of words? Does it afford any basis whatever on which “scientific minds,” whether devoted to the sciences of matter or the sciences of spirit, can agree? or on which the two classes of men of science can ever come together?

FAITH. [This paper was delivered at the commencement, at Harvard University, 1885, by Mr. William B. Noble, of Washington, D.C., one of the graduating class of that year, who kindly furnished it to CHRISTIAN THOUGHT. It is fair that the reader should remember that it was written to be spoken.]

“The only real theme, the deepest theme, of the world’s history and of man’s history, the one to which all other subjects are subordinate, is the **conflict** between faith and unbelief.” So says Goethe.

All that is human and is not doubt, is, down at the very bottom, built on faith. In philosophy, in science, when we have gone beyond a certain point, grope in what direction we will, we

come up against a blank wall of mystery. Things that must be accepted as true because they are there, and because we cannot think or act without them; call them postulates, or laws of thought, call them molecules and ether, or laws of nature,—what are these but mysteries? What is the building on them of a philosophy or a science but an act of faith? Grant that a man without God cannot find him in the material universe; that a man without God cannot find Him in the realm of thought and reason; has he therefore found no mystery, no need? Has he therefore no need for faith? Listen to Carlyle's testimony. Even he says: "Science has done much for us; but it is a poor science that would hide from us the great, deep, sacred infinitude of nescience, whither we can never penetrate, on which all science swims as a mere superficial film. This world, after all our science and sciences, is still a miracle."

And surely it is no better with philosophy. Assume that the laws of thought are true, and perhaps you will some day account for all things; but that is merely saying that, in assuming the laws of thought to be true, you *have assumed all*. *The shorter and easier* we make reason's road leading to our first postulate, the sooner we come to the postulate and the less our philosophy satisfies *our deepest doubts*. *Make philosophy and science* perfect as we please, we have simply made clearer the atmosphere through which loom up those great mountains of mystery that lie beyond. No; faith or doubt *must be our alternative*—a knowledge grounded on faith, or the despair of an Egyptian darkness. Take your choice! There is no middle ground.

And is not all this as it should be? If there is an Infinite, it is surely most reasonable that we finite mortals should not be able to understand Him, His ways, and His relations to man. If WE, moreover, could apprehend the infinite, there were no infinite. And if this wall of mystery did not surround us human beings, then we could indeed say: "Knowledge is mine." As it is we can say, and can say only, "I believe, *therefore I know*," or we must needs say "I *can not* believe, *therefore I do not know*."

But have we a right to say "I *can not* believe?" Sooner than give up so, let life become one long struggle against this "*can not*." That were surely a higher life to live. For belief,

conviction, knowledge, the acceptance by man of something as true,—this is what moves the world. This is our dynamic, this is *the mighty river* whose steady tide turns our mills and floats our commerce ; this is the stream that, when it meets obstacles, breaks into the grand whirlpool and cataract of revolution, crusade,—into every form of national or individual upheaval. Shall we make *no use of this swelling tide* because it seems to us to draw its waters mysteriously from the fleecy clouds and from the bosom of the earth ? Man looks at it in wonder, and says : “ I will follow this stream and see where it comes from. Here it is hindered and utilized for the industry of man ; its waters are loaded with remains of obstacles, and turbid with the signs of past conflicts. I will see what it is at its beginning. Surely when I find its source, I shall find there the Author of all power and all good.” So up the valleys he journeys. The stream beside his path grows smaller, but clear and pure. On he goes, beyond the haunts of men,—the river now no more than a brook. This does not dishearten him. On he goes until the brook becomes a rill, and at last the rill ends in a clear, cold spring that bubbles up out of the earth. It comes, he does not know whence, he does not know why. It comes, and comes, and that is all.

“ I believe, therefore I know ! ” or “ I can not believe, therefore I do not know ! ” But suppose you and I both find we *can* say “ I believe, therefore I know,” and yet we clash, we disagree as to foundation of faith and superstructure of knowledge ; what way have we of knowing which belief is right ? Well, one way, the one I wish to speak of now, is that of results. A *law of science* must not only be induced from past data, but must also agree with new data as they come in ; a *philosophic thesis* must bring about no antinomy ; “ Men do not gather *grapes of thorns*, nor *figs of thistles*.” Then let unbelievers see to it that the *faith* of mere science (for it is a faith) and the *faith* of mere philosophy show us good results in life and character, as does the purest and best of belief. Otherwise, the unbiassed may conclude that truth is not wholly with the men of science and the philosophers ; the unbiassed mind may deem their faiths, their versions of the mysteries of nescience, not the nearest to the truth after all. May it not be that men will find the best results in life and character coming

from a belief in divine revelation? And I see no reason why this consideration of results should not strongly influence them in their belief.

Still, readiness to believe is not belief, I know. And the considering of results in others rather *prepares* one for persuasion than really persuades. Indeed, perhaps it ought not to persuade. Yet we must not forget the strange fact, so often proved, that when men try to give up doubting, and act; when they do the duty that lies nearest, with high purpose and reverent soul,—then they get a belief almost without knowing where it *comes from*. *If we will only put away intellectual pride, and leave off saying* “We will not believe what we can not understand,” forasmuch as we see that there surely *are* things which we *do* not understand,—then if we are in earnest things clear up somehow. Poor Dorothea, in Middlemarch, expresses this. “I have a belief of my own,” she says, “and it comforts me.” . . . “That by desiring what is perfectly good, even when we don’t know what it is, and can not do what we would, we are part of the divine power against evil—widening the skirts of light, and making the struggle with darkness narrower.”

Ah, yes! We may turn philosophers, and deal in abstraction, or we may turn scientists and *train ourselves into looking upon other men*, at least, if not ourselves, as mere combinations of molecules and ether. But we shall still have these troublesome bodies and heads and hearts to deal with; we shall still be eating and sleeping, laughing and crying, in a work-a-day world. Then is it not, after all, a point in favor of our religion that it *is* empiric, that *it can deal effectively with these practical and troublesome matters*, and that its *proof* can become a practical work-a-day world proof—*a proof for the ignorant and unreasoning as well as for the wise and learned?* For *experience* and every-day life are sure to bring to the earnest doubter convictions that he could not have got in a *lifetime* of study and speculation; but he *must be earnest*, he must be ever looking upward, hoping for the heavens to open before his gaze. “Truth lies at the bottom of a well,” says the adage. And the Thracian maid who jeered at Diogenes for falling down a well, as he was walking along looking steadfastly at the sky, did not know *what Diogenes must have found there*.

And we, too, if we seek the right, if we look up with earnest gaze, shall surely, through some incident of every-day life, find the truth. That is what every-day life was made for. We shall find that our doubts, our struggles to believe, have in strange way been as by a heavenly touch turned into belief, and that this belief is slowly ripening into knowledge and love.

Now, I know some one is saying: "But all this simply means that you give up reason as your guide and *go back to sense and imagination*. *You are adrift* on the sea of emotion, to be blown back and forth by gusts and gales of superstition. What is to distinguish you from all the religious fanatics that crowd the pages of history? What, in short, is to make the belief you wish men to stumble into, the right belief?" What?—Why, *reason*: I would not discard it. No man needs reason more than the believer. In the highest form of Christian life and thought, the temptation to fanaticism *is great*; in any *but* the highest, the temptation to all forms of *self-ness* (if I may coin a word comprehensive enough) *is greater still*. *And the revelation we champion* is no substitute for reason, but requires reason in the highest degree, to keep the revelation from either turning men's heads and unfitting them for life, or degenerating in their hands into something merely human. But if reason alone will not find God for us, then let us supplement reason! If my walking stick fails to draw electricity from the clouds, I will not smash the stick, I will make me a kite. And if I am lame I shall need the walking stick most when I come to *fly the kite*.

Our faith is not a blinding of our eyes that we may depend more completely on the strong guiding hand we think we hold. It is a rational structure, built on a foundation of rational faith. Without this foundation, strong and sure, the superstructure of reason will fall to the ground. But the foundation is only a foundation, and a religion that throws over reason entirely and tries to depend on faith alone is sure to end in fanaticism and failure. Thus we call on faith to do for us what reason itself tells us it can never do. At the same time an unreasonable interpretation and use of the facts of revelation has done the cause of religion infinitely more harm than all the disbelief that the world has shown. An overwhelming agnosticism, then, doubt, deepest,

all-embracing doubt, or a faith of some kind,—this must be my choice ; and, forasmuch as the highest activity of the human soul is in belief, then, if I have not found my faith, let my whole life be one long search and struggle to find it.

ANTICIPATIONS OF SCIENTIFIC TRUTH IN SCRIPTURE, by Francis W. Upham, LL.D.—To poison truth is as real a sin as to poison the Croton River; yet celebrity-loving lecturers seek to wrest against the Scriptures some scientific truths which they did not discover, but which they have interfused with crudities and falsities that transform them into grotesque and malignant errors. The field of the Bible is the spiritual, which the eyes see not, the ear hears not ; and yet even of some of those *natural* truths, the knowledge of which they suppose to be wholly modern, and whose experimental verification is of recent date, something is shown in the passing glimpses of scientific truth revealed in Holy Scripture.

Thus: the new evidence that races of plants and animals are earthborn products, indigenous in certain circles of the globe, and that new races of plants and animals appeared in some of the past æons of this planet, accords with the revelation, that while the Father of our spirits breathed into man “the breath of lives,” there was given to the Earth by the going forth of His Word a plant-and-animal-producing power.* This Power, im-

* “And God said, Let the Earth bring forth the living creature after his kind.” Gen. i. 24. In “The Six Days of Creation,” Dr. Lewis points to this power. Once seen, the wonder is everybody did not see it before. First: The power is revealed : “God said,” and His saying is doing. Second: When God said, “Let there be light,” nothing is revealed between the Word and its result ; the action of the power seems *immediate*. It is *mediate* in the creation of animals; it empowers the Earth to bring forth living creatures. Between immediate and mediate divine power the Scripture makes not, usually, the distinction we make ; it speaks as when *we* say, “God made us,” but after saying the animal kingdom is earth-born, goes on to say (v. 25), God made the living creatures ; taking care the scientific truth shall not hide the moral truth. Third : This law is revealed, the earth is to bring forth animals producing their kind. Was this power given for once only? As the result of each of the other goings forth of the divine Word is permanent, so it would seem this must be. Yet, as the earthborn living creatures produce their

manent in the globe through all the cycles of its duration, in itself being ever the same, those products, of which it is one of the factors, would ever preserve a certain likeness, and it may be a seeming continuity; and yet, their other factor, being variable, those products must have ever changed with the great changes of the forming world. Geology has partially traced out some of the workings of this power in the ages before man was made; it still abides in this planet; and when this *aeon* ends in fire, as the Bible reveals it will, "and the elements shall melt with fervent heat"—it may be that, rising to higher effects in the new conditions of the globe, this power will clothe the new earth of the sons of God with plant and animal life, surpassing the beauty of all before.

Thus: the experimental verification of the unity of certain of the known forces in nature is recent; but the thought that there is only one substance and one force, runs clear through old philosophic thinking, and that such is the fact is revealed. The loss of the oriental interpretation of the genesis, when the Church with all the wealth of her ancient records passed over from Asia into Europe, obscured this revelation; and when that great cycle of time and thought, the Ancient World, came to an end, this thought nearly died out from the human thinking. Modern science treated as an element everything it could not decompose,

kind, the power given to the Earth is evidently to be put forth at intervals; and, doubtless, at intervals commensurate with the vastness which Dr. Taylor Lewis has proved to be in the time-scale of the world's generation.

That new living things have been formed by chemical art, animalculæ made in the laboratory, has several times been asserted, as also the spontaneous generation of minute living creatures. Up to this hour there is no proof of either; but, were the latter proved, it would seem to be evidence of the generative power in the Earth as still existing, and stirring in peculiar conditions in a humble way. The doing of the former is not given up, and if the news were telegraphed, true, beyond a doubt, that it had been done in the laboratory at Bowdoin, Middletown or elsewhere, there would doubtless be a widespread feeling that the Bible religion must end. But, this would only be because what there is in the Bible has not been brought out, or rather because he who brought it out has not been listened to, while every skeptic had a hearing; for it would only show that man had reached to the threefold generative power (see v. 11, 20) which the Bible reveals as abiding in the globe; something, perhaps, no more impossible than that he should have reached to, and gained some control over, the electric power which seems to pervade all nature.

and discountenancing intuition, wisely proceeded by experiment, and classified by observation. Beginning at the circumference, it humbly, cautiously, yet swiftly, sounded its experimental way toward the centre, and this inductive science now begins to come in sight of these grand old central, intuitive, and religious ideas. It is natural enough that some of its votaries are driven by this glimpse of them almost out of their senses. In the whirl of their wonder, they loosen their hold on the experimental method by which Baconian science wrought its toilsome way into the secret 'chambers of nature ; they give themselves over to the guiding of the imagination ; they lapse into unscientific ways, and distractedly mix up physics and metaphysics ; they wildly run out true ideas into heathenish speculations ; and, talking of what they know little about, they prate of the religion of science and the science of religion.*

These things are only a little more evidence that Theology, though not unaffected by prevailing opinions and usages, even in error has power to rule the ebb and flow of human thought, as the moon the tides. From out of the poisonous fumes of a sensuous religionism there went forth a little time ago a word of vanity, the all-reconciling, all-explaining, talismanic word, Development. Of course there now goes forth, in the subservient sphere of earth-born scientific gnosticism, the magical, wonder-working "open sesame," Evolution.

These forms of philosophic and scientific atheism that do now appear will soon of themselves resolve to nothingness, and in their place will others appear, to pass away. In themselves, these things are more curious than alarming. These are the effervescings and the exhalations of decay. It is the corrupting of the old world that breeds these things, and across the whole purifying breadth of the waters sends them over here with the opera bouffe and the cholera. There were such things before, and more will come after. "The air hath bubbles as the water hath, and these are of them." It is only the spirit of this evanescence that is alarming, and this only as a vanishing warning of what is of lasting and world-wide moment.

† See the "Chips" and "Lectures on the Science of Religion" by Max Müller —a man with a magical art of popularizing what he does not understand.

The Holy Ghost, who came to convince of sin and righteousness, has purified the eye till it sees in the three orders equally ordained of God, concurrent in their function, independent in their sphere—sees in the Family, in the State, and in the Church—the Beautiful, the Good, the Just, as they were never seen before and the Spirit now impels man to realize what He thus reveals in vision. The eye of the mind sees the vision darkly, for it is darkened by the heart, which resists the divine impulsion. The heart knows not itself, nor the power working to unknown ends. The heart feels that the religion of the Spirit is both destructive and constructive, and it mourns what is passing and fears what is coming to pass. The light shineth in darkness, and the darkness comprehendeth it not.

In heathen Rome, when the Christians came to the strength of numbers, there came a union of Church and State, brought about more by policy than principle, and ever resulting in the struggle of each to subjugate the other. This course of events was foreseen by the apostles, some of its causes were at work while they were living, and its end was foretold by the Lord. The heart now makes a last struggle to prolong this sacerdotal and political misery from which the redemption of the Church “draweth nigh,” and foreseeing its failure in this, it prepares open, general war against Christ; and it has aroused the culture which, found only in Christendom, owes much of its strength to Christianity, to withstand in all possible ways the onward, world-wide movement of the Holy Ghost. Some of this culture is sensitive to his influence, and it sometimes seems to itself fighting Christianity, while warring with what is anti-Christian; and yet much of all the culture of Christendom, whether churchly or worldly, is aristocratic, sin-cherishing, and in spirit is bitterly hostile to the Spirit of the Lord. In the selfishness of its self-love, this patrician culture secretly betrays or openly wars against the religion of Him, whose blessing, seeking out neither the strength of riches nor the splendors of power, neither Rothschild nor Bonaparte, falls on the poor in spirit; the religion of labor, of self-denial, of purity, of truth; that manger-born religion which preaches the equality of all souls before God, whence follows equality before the law; the religion of Him who earned His

daily bread till He was about thirty years of age by one of the handicrafts of Roman slaves; the religion of Him who said: "My Father worketh hitherto and I work;" the religion of Him who calls the people into being, calls into being the laity, fulfilling that divine purpose to the beginning whereof St. Peter witnessed, saying "to the strangers scattered throughout Pontus, Galatia, Cappadocia, Asia, and Bithynia, Ye are a royal priesthood;" and St. John, saying to the seven Churches in Asia, "Unto Him that hath made us kings and priests, unto God be glory and dominion forever."

CIRCULAR FROM THE INSTITUTE.

[It has been suggested that it would be well to insert, for preservation in CHRISTIAN THOUGHT, a circular mailed some months ago to each member of the American Institute of Christian Philosophy. It is hoped that its reperusal by members and its first reading by others will promote the interests of the Institute.]

"4 WINTHORP PLACE,

"New York, 1887.

"DEAR SIR:—The Officers of the Institute feel that it is desirable that members should be informed from time to time in regard to its movements by a direct statement made to themselves. The Officers of the Institute, doing their work without salary, feel free to state that they are less inclined now than ever before, to lay it down, although the responsibility in each department is increasing monthly. The conviction is probably stronger in them than in other members that the Institute is a needed thing, because they, more than other members, receive assurances, scarcely tangible enough to be put in print of the usefulness of the Institution to the cause of Christianity. But there are some things which can be stated. The losses from our roll, as a rule, belong to the earlier members of the Institute who seemed to have joined under the impulse of the first enthusiasm. Those who have joined in later years almost invariably pay up their dues and continue their membership. So that after striking a number of non-payers from our list, we find that we have more members

to-day than ever before. In addition to the consciousness of their own increase of zeal, the Officers find more and more that the members of the Institute are having an intelligent zeal for its progress. There is more readiness to stand by the appeals of the Officers than ever before.

"Another sign of growth is the increase in circulation of *CHRISTIAN THOUGHT*, as a periodical, beyond the bounds of our membership. This means the attaining more nearly the result we intended in the beginning, viz., the circulation of a high literature in our department; and this invariably creates interest and often leads subscribers to the periodical to become members of the Institute, and leaves upon all an impression of our power and usefulness. Again, we naturally see, more than unofficial members, the periodicals of Europe and America, and find an acknowledgment of *CHRISTIAN THOUGHT*, of the Lectures and Papers delivered before the Institute, and the work of the Institute itself, more and more recognized, and always with respect. These things are so encouraging to the Officers that they feel themselves bound to communicate them to you.

"When an institution becomes satisfied with its efforts and with itself, it begins to decline. We are very far from such unwise self-content. These signs of growth produce in us increased dissatisfaction, which we trust is a holy desire to do more and more for the divine truth which we are advancing. We therefore ask your very hearty and immediate co-operation in the lengthening of the following lines of work.

"1. We inclose blanks* of nomination which we wish filled with the names of such persons as you think will take an interest in our work, and returned to us; we will send them specimens of our publications and a special letter to each one. Any friend of yours, whether he become a member or not, will regard it a compliment to be nominated by you; and we have found this a most efficient method of increasing our work. If at any time you should need more of these blanks they will be furnished in such quantities as you may wish.

"2. You most probably know a few people who, although they would not become members of the Institute, might be

* These will be sent to any reader upon application.

induced to take *CHRISTIAN THOUGHT* one year. Can you not secure such a subscriber? It will add nothing to the income of the Institution, but it will be carrying out the great purpose for which we are banded, viz: the circulating of this kind of literature.

“ 3. Inclosed you will find, also, a circular in regard to a Correspondence School of Philosophy. We beg that you give the paper a careful reading, and endeavor to have it inserted in your local papers, no matter how small the circulation of these newspapers may be, and obligingly mail a marked copy to the Institute.

“ 4. At a late meeting of the Executive Committee it was said that putting our bound volumes into libraries shelved them in obscurity, and that college students and others would not take them down. After consultation a plan was devised for raising a fund for the purpose of circulating these volumes. To that fund contributions were made by the Rev. Alex. MacKay-Smith, Rev. Dr. Deems, Prof. Dana of Yale University, Rev. Dr. Bradford, and Mr. Wm. O. McDowell. The volumes are sent out at a price, if anything, below cost. Now if each of our members will make a donation, we shall do a splendid work this year. An account of the donations and the circulation will be rendered in the annual report of the Secretary in July.

“ 5. We are rapidly arranging for our Summer School at Key East, beginning the 15th of next August; you will see a programme in *CHRISTIAN THOUGHT*. We should be very happy to have you visit that Summer School, or to drop in at our Monthly Meetings held the first Thursday evening in each month at 8 P.M., 4 Winthrop Place, New York. Would it not be well for those having friends projecting a trip in the neighborhood next summer, to mention to them that Key East is a charming place, only a short distance below Long Branch, and that the School holds its session there? Will you not say to any such friend that a postal card directed to this office will bring them a circular giving full information?

“ 6. We call your attention to the fact that the Institute is endeavoring to create an Endowment Fund. With twenty-five thousand dollars at interest, we should be lifted above depend-

ence upon money solicited to carry on the institution. Our Endowment amounts to not quite two thousand dollars. We would be happy to receive donations from you, from time to time, or from any friends of yours whom you may be able to interest in this thing. No institution like this has ever been carried on at so little expense, but there must be some ; lecturers, traveling expenses, publications, postage, various items of printing and clerical service, amount to a considerable sum in a year.

“ 7. We desire to urge upon our members the necessity of prompt payment, and to call each member’s attention to the fact that *his name remains upon the roll, and our publications are sent him at the expense of the Institute, until he requests that his name be removed.* It remains, for the reason that we do not feel ourselves at liberty to take any gentleman’s name from our roll because the time of payment has passed by a few weeks or even months. When such lapses occur we forward bills, not as duns, but as simple reminders. If we had all the money due us now from gentlemen who *for years* have been receiving *all our publications*, we should be able to make a much greater impression on the public by our work.

“ 8. We earnestly ask you to give a little time to studying the purposes, the plans, and operations of the Institute, and to give us your earnest and frank suggestions of any improvements in methods which may occur to you.

“ Without cant, without formality, in the deepest seriousness, we ask you as a Christian to pray for the Institute ; that God may establish it in all righteousness and usefulness to the honor and glory of that Christ whose name it bears.

“ With thanks for all past and *future* favors, we are,

“ Faithfully yours,

“ THE EXECUTIVE COMMITTEE.

“ By CHARLES M. DAVIS, *Secretary.*”

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 71 Bible House, New York.]

“WORD STUDIES IN THE NEW TESTAMENT,” by Dr. Marvin R. Vincent (Charles Scribner’s Sons, octavo, \$4.00), is a goodly volume of over eight hundred pages which we commend very confidently to all Bible students who are not familiar with the Greek tongue. It is known that in every word there is some picture, or shade of meaning, or manner of thought, or treasure of idea, which cannot be reproduced in the words of any other language. Dr. Vincent takes up a large number of such words and puts English readers in possession of their hidden richness. There is no attempt to make this a dictionary, encyclopedia, or commentary. But so much thorough and judicious scholarship is evinced in this book that while it will be of inestimable advantage to English readers it will, also, be valuable to Greek scholars in the study of the New Testament.

“THE POETRY AND PHILOSOPHY OF GOETHE” is the title of a volume edited by Marian V. Dudley, and published in Chicago by S. C. Griggs & Co. (\$1.50). It comprises the lectures and extempore discussions before the Milwaukee Literary School in August, 1886. The contributions to this attempt to popularize the thought of the great German author is made by such specialists as Prof. Harris, Mr. James MacAlister, Mr. F. B. Sanborn, Prof. Denton, J. Snider and others, and such topics are treated as “Goethe as a Scientist,” “Goethe’s Relation to English Literature,” “Mythology of Second Part of Faust,” “The Elective Affinities,” etc. Prof. Harris has a paper on “Wilhelm Meister.” The Milwaukee Literary Society is doing a good work; this volume being creditable to American literature.

“A ROMANCE OF PROVIDENCE.” This is the title Mr. Joseph S. Taylor gives to his beautiful volume, in which he endeavors to justify the phrase by tracing the “History of the Church of the Strangers,” in the City of New York. The publisher says: “Full and complete descriptions of various methods of this Church, which could be successfully introduced in any Church, are found. The plans adopted have been proven and have been found to be the best. The reader will find the topics such as the “Prayer and Mother’s Meeting,” “Young People’s Society of Christian Endeavor,” “Sisters of the Stranger,” “Internal Economy,” “The Sunday School,” etc., etc., thoroughly treated. Endeavor has been made to show how the people of all creeds, sections, and nationalities gathered about its Pastor, and how Providence has used them and him to perform a special function. A Church so unique in character, begun under the divine guidance, amid circumstances so peculiar—its history may justly be called “A Romance of Providence.” The Editor of CHRISTIAN THOUGHT can say little about a book in which he necessarily figures so largely, except that he approves the design and execution, that he naturally wishes that all the plans found useful by his church might be known to all the churches, and he shall be gratified to learn that the publication of this volume is extending the usefulness of the “Church of the Strangers.” The price by mail is \$1.25. (Wilbur B. Ketcham, Publisher.)

ROLL OF LECTURERS.

[Lectures and Papers from the pens of the following gentlemen have been read before the American Institute of Christian Philosophy]:

Prof. STEPHEN ALEXANDER.
LYMAN ABBOTT, D.D.
GEORGE D. ARMSTRONG, D.D.
President JOHN BASCOM.
E. F. BURR, D.D.
Prof. FRANCIS BROWN.
L. D. BEVAN, D.D.
A. H. BRADFORD, D.D.
BABOO RAM CHANDRA BOSE.
Prof. WILLIS J. BEECHER.
Prof. ADDISON BALLARD.
President HENRY A. BUTTZ,
Prof. BENJ. C. BLODGETT.
Prof. BORDEN P. BOWNE.
A. J. F. BEHRENDTS, D.D.
HOWARD CROSBY, D.D., LL.D.
ABRAHAM COLES, M.D., LL.D.
Prof. HENRY N. DAY.
Prof. NOAH K. DAVIS.
JAMES R. DAY, D.D.
CHARLES F. DEEMS, D.D., LL.D.
JOHN B. DRURY, D.D.
Rev. SAMUEL W. DIKE.
Rev. HENRY AMMI DOWS, A.M.
Rev. SAMUEL W. DUFFIELD.
J. F. DRIPPS, D.D.
ISAAC ERRETT, D.D.
President ROBERT B. FAIRBAIRN.
Prof. GEORGE F. FISHER.
WASHINGTON GLADDEN, D.D.
President ROSWELL D. HITCHCOCK
Prof. EDWARD J. HAMILTON.
SAMUEL M. HAMILTON, D.D.
Rt. Rev. SAMUEL S. HARRIS, D.D., LL.D.
President WILLIAM DE W. HYDE.
THOMAS A. HOYT, D.D.
A. WILFORD HALL, LL.D.
Rev. H. L. HASTINGS.
Prof. HERRICK JOHNSON.

Prof. GEORGE T. LADD.
CHARLES E. LORD, D.D.
Rev. WILLIAM L. LEDWITH.
JAMES W. LEE, D.D.
Vice-Chancellor HENRY M. MACCRACKEN.
T. T. MUNGER, D.D.
Prof. BENJ. N. MARTIN.
Mr. WILLIAM G. MOODY.
Rev. S. S. MARTYN.
J. L. McILVAINE, D.D.
GILES H. MANDEVILLE, D.D.
Prof. DANIEL S. MARTIN.
Prof. GEORGE B. NEWCOMB
Prof. EDWARD NORTH.
President NOAH PORTER.
WILLIAM H. PLATT, D.D., LL.D.
Prof. A. P. PEABODY.
Prof. FRANCIS L. PATTON.
HORMUZD RASSAM, Esq.
J. H. RYLANCE, D.D.
Rev. J. F. RIGGS, A.M.
JAMES G. ROBERTS, D.D.
J. E. RANKIN, D.D.
Prof. GEORGE B. STEVENS.
ANDREW H. SMITH, M.D.
CHARLES S. STOCKTON, M.D.
Rev. T. J. SCOTT, D.D.
J. B. THOMAS, D.D.
WILLIAM TUCKER, D.D.
Prof. WILBUR F. TILLETT.
Mr. C. S. TOWNE.
E. P. THWING, Ph.D.
Prof. ALEXANDER WINCHELL
Mr. S. H. WILDER.
Prof. RANSOM P. WELCH.
F. COPE WHITEHOUSE, A.M
RICHARD WHEATLEY, D.D.
Prof. C. B. WARRING.
JAMES M. WHITON, D.D.
Prof. CHARLES A. YOUNG.

ANNUAL LIST OF MEMBERS OF THE AMERICAN INSTITUTE OF CHRISTIAN PHILOSOPHY.

[CORRECTED TO JULY 1ST, 1887.]

VERY IMPORTANT.—As our publications are mailed free to all our members, it is important that we be promptly informed of changes of address, to save trouble and expense.

Any errors in this list will be cheerfully corrected, with thanks to those who report them.

All names are retained on the books of the Institute until proper notification of discontinuance. The bills for membership dues are sent to each member annually. In the meantime all our publications are forwarded, and members are expected to pay all arrears which may have accrued up to date of discontinuance.

ENDOWMENT MEMBERS.

[This list embraces the names of those who have contributed \$100 or more to the Endowment Fund, placed in the order of the time of subscription. They are *Life Members*:

DEEMS, CHARLES F., New York.
VANDERBILT, CORNELIUS, New York.
STOKES, ANSON PHELPS, New York.
DODGE, WILLIAM E., New York.
JAMES, D. WILLIS, New York.
JESUP, MORRIS K., New York.
FISK, CLINTON B., Seabright, N. J.
SCHIMMELL, O. O., New York.
SHEPARD, ELLIOTT F., New York.
VANDERBILT, GEORGE W., New York.

LIFE MEMBERS.

[By payment of \$50 or more to the General Fund.

ARGYLL, the Duke of, D.C.L.; Argyll Lodge, Campden, London; and Inverary Castle, Inverary, Scotland, \$50.
BAKER, CHARLES J., Baltimore, Md., \$50.
BALDWIN, S. L., D.D., East Boston, Mass., \$50.
BATCHELOR, MRS. EDWARD, Philadelphia, Pa., \$100.
BIDEN, LEWIS, F.R.H.S., Portsea, England, \$50.
BOYNTON, FRANK H., M.D., New York, \$50.
BRADFORD, AMORY H., D.D., Montclair, N. J., \$100.
BRADLEY, JAMES A., New York, \$500.
BROWN, W. HARMAN, New York, \$100.
BUTLER, CHARLES, LL.D., New York, \$50.
CHITTENDEN, SAMUEL B., Brooklyn, N. Y., \$50.

CRAWFORD, ROBERT L., New York, \$50.
 CROSBY, HOWARD, D.D., LL.D., New York, \$100.
 DANA, JAMES D., LL.D., Professor, New Haven, Conn., \$50.
 DEEMS, FRANK M., M.D., Ph.D., New York, \$50.
 DEEMS, Rev. EDWARD M., A.M., New York, \$50
 DEEMS, Prof. J. HARRY, Baltimore, Md., \$50.
 FAULKS, Rev. J. B., A.M., Morristown, N. J., \$50.
 GETMAN, NORMAN, M.D., Richfield Springs, N. Y., \$50.
 GRANGER, Rev. ROBERT, Richfield Springs, N. Y., \$100.
 GRANT, RICHARD, Jersey City, N. J., \$50.
 HUNT, SANDFORD, D.D., New York, \$50.
 HURST, JOHN F., D.D., LL.D., Bishop, Buffalo, N. Y., \$100.
 JEWETT, HUGH J., New York, \$100.
 LAKE, J. E., B.D., Atlantic Highlands, \$50.
 LATHAM, JOHN C., New York, \$50.
 LEE, Gen. G. W. CUSTIS, Lexington, Va., \$50.
 LEONARD, THOMAS, Leonardsville, N. J., \$50.
 LESLIE, Mrs. FRANK, New York, \$50.
 McDOWELL, WM. O., New York, \$100.
 McDOWELL, WM. T., New York, \$100.
 McTYEIRE, HOLLAND N., D.D., Bishop, Nashville, Tenn., \$100.
 OSBORN, Prof. HENRY F., Sc.D., Princeton, N. J., \$50
 POTTER, Hon. O. B., A.M., New York, \$100.
 RANKIN, DAVID M., D.D., Richfield Springs, N. Y., \$100.
 RASSAM HORMUZD, Isleworth, England, \$50.
 SCOTT, THOMAS JEFFERSON, D.D., Bareilly, India, \$50.
 SEELEY, Rev. FRANK H., Delhi, N. Y., \$100.
 SIMPSON, Prof. A. R., M.D., F.R.S.E., Edinburgh, Scotland, \$50.
 STOKES, G. G., D.C.L., LL.D., F.R.S., Professor, Pres. Victoria Institute,
 Cambridge, England, \$50.
 STURGES, EDWARD, New York, \$50.
 TAYLOR, WILLIAM M., D.D., LL.D., New York, \$50.
 VAN DEUSEN, EDWARD M., D.D., Carrollton, Md., \$100.
 WELCH, Prof. RANSOM BETHUNE, D.D., LL.D., Auburn, N. Y.
 WILSON, Mrs. AUGUSTA EVANS, Mobile, Ala., \$50.
 WOOLSEY, THEODORE D., D.D., LL.D., New Haven, Conn., \$50.

MEMBERS.

ABBOTT, LYMAN, D.D., Cornwall-on-Hudson, N. Y.
 ACKERMAN, Rev. G. E., A.B., A.M., M.D., S.T.D., Buffalo, N. Y.
 ADAMS, Rev. JOHN Q., San Francisco, Cal.
 AINLEY, Rev. WM. Hantsport, Nova Scotia.
 ALEXANDER, GEORGE, D.D., New York.
 ALEXANDER, HENRY C., A.M., D.D., Professor, Hampden Sidney College, Va.
 ALEXANDER, JOHN F., New York.
 ANDREWS, ISRAEL WARD, D.D., LL.D., Marietta, O.
 ARMSTRONG, GEORGE D., D.D., LL.D., Norfolk, Va.

ARMSTRONG, J. G., D.D., Richmond, Va.
BALDWIN, Hon. HENRY P., Detroit, Mich.
BALDWIN, WILLIAM, New York.
BALE, Rev. ALBERT G., Melrose, Mass.
BARNES, Rev. CHARLES R., Paterson, N. J.
BARNES, Rev. WILLIAM H., Barrie, Ontario, Canada.
BASCOM, JOHN, D.D., LL.D., Madison, Wis.
BASKERVILLE, W. M., A.M., Ph.D., Nashville, Tenn.
BATTLE, Hon. KEMP P., LL.D., President, Chapel Hill, N. C.
BATTLE, A. J., Pres., Mercer Univ., Macon, Ga.
BAYARD, Hon. THOMAS F., Secretary of State, Washington, D. C.
BEATTY, ORMOND, LL.D., President, Centre College, Danville, Ky.
BEDELL, Rt. Rev. GREGORY T., D.D., Bishop of Ohio, Cleveland, O.
BEECHER, Prof. WILLIS J., D.D., Auburn, N. Y.
BEHREND, ADOLPHUS J. F., A.M., D.D., Brooklyn, N. Y.
BELL, JAMES, Orange, N. J.
BETHUNE, Gen. JAMES N., Warrenton, Va.
BETTS, Rev. W. A., Ph.B., Greenville, S. C.
BICKNELL, THOS. W., LL.D., Boston, Mass.
BISSELL, ALLEN P., D.D., Shelter Island, N. Y.
BLACKALL, C. R., M.D., Phila., Pa.
BLANTON, L. H., D.D., Chancellor, Central University, Richmond, Ky.
BLISS, JOHN C., D.D., New York City.
BLODGETT, Prof. B. C., Northampton, Mass.
BOARDMAN, C. H., M.D., St. Paul, Minn.
BOLLES, ALBERT S., Philadelphia, Pa.
BOLTON, HORACE W., D.D., Boston, Mass.
BOLTON, Rev. VALENTINE F., A.M., Glen Gardner, N. J.
BOOTH, HENRY M., A.M., D.D., Englewood, N. J.
BORDEN, Rev. B. C., M.A., Sackville, N. B.
BOSE, RAM CHANDRA, Lucknow, India.
BOWEN, WILLIAM C., President, Female College, Bordentown, N. J.
BOYD, JOHN G., M.D., New York.
BOYD, WILLIAM A., New York.
BOYLE, Rev. W. K., Baltimore, Md.
BOYNTON, NATHANIEL, A., New York.
BOZEMAN, NATHAN, M.D., New York.
BRACKETT, GILBEET R., D.D., Charleston, S. C.
BRADFORD, Rev. BENJ. F., Oxford, N. Y.
BRANCH, THOMAS P., Augusta, Ga.
BRANDON, ALEXANDER, New York.
BRIGGS, GEORGE W., Dallas, Texas.
BROOKS, Rev. ARTHUR, D.D., New York.
BRUNNER, J. H., A.M., D.D., Pres., Hiwassee Col., Tenn.
BUCKHAM, GEORGE, A.M., New York.
BUCKINGHAM, Mrs. M. E., Longmont, Col.
BULL, IRA B., Rahway, N. J.

BUNKER, Mrs. WILLIAM E., New York.
BURDGE, FRANKLIN, LL.B., New York.
BURDICK, Prof. FRANCIS M., Clinton, N. Y.
BURGWYN, WILLIAM H. S., Esq., Henderson, N. C.
BURR, ENOCH F., D.D., Lyme, Conn.
BURRELL, D. H., Esq., Little Falls, N. Y.
BURROUGHS, JOHN H., B.A., Philadelphia, Pa.
BURT, THOMAS, Warwick, N. J.
BUSHNELL, D. E., P.B., D.D., Waynesburg, Pa.
BUTTZ, HENRY A., D.D., Pres., Drew Theological Seminary, Madison, N. J.
CABELL, JAMES L., LL.D., University of Virginia.
CALDER, GEORGE, New York.
CALDWELL, J. C., D.D., West Chester, Pa.
CALDWELL, Rev. LISLE B., Ph.D., Athens, Tenn.
CATTELL, W. C., D.D., LL.D., Philadelphia, Pa.
CHAMBERS, WILLIAM J., Philadelphia, Pa.
CHENEY, C. E., LL.D., Bishop, Chicago, Ill.
CHEW, JOHN M., A.B., New York.
CLAPP, ALEXANDER H., D.D., New York.
CLARK, DANIEL H., St. Louis, Mo.
CLARK, Rev. E. WARREN, A.M., Ex-Prof. in Imperial University, Tokio, Japan ;
Tallahassee, Fla.
CLOPTON, DAVID, Associate Justice, Supreme Court, Montgomery, Ala.
CLYDE, Rev. JOHN C., D.D., Bloomsbury, N. J.
COBBS, DANIEL BOONE, B.Ph., Mobile, Ala.
COBBS, JAMES, LL.B., Mobile, Ala.
COLBY, CHAS. L., B.P., Pres. Wis. Cen. R.R., Milwaukee, Wis.
COCKE, Rev. ALONZO R., Lexington, Va.
COLES, ABRAHAM, M.D., LL.D., Scotch Plains, N. J.
COLVIN, Hon. ANDREW J., Albany, N. Y.
COOK, Rev. JOSEPH, Boston, Mass.
COOK, Mrs. JOSEPH, Boston, Mass.
COOPER, INMAN W., A.M., Edwards, Miss.
CORNELL, Mrs. LETITIA, New York.
COWGILL, CLAYTON A., M.D., Penn, Fla.
COZBY, Rev. JAMES, A.M., Newberry, S. C.
CRANE, Mrs. M. HELEN, Asbury Park, N. J.
CRAFTS, Rev. WILBUR F., New York.
CRUIKSHANK, ROBERT, D.D., Highland, Kan.
CURRY, DANIEL, D.D., New York.
CRYER, Rev. S. S., M.A., Rock Island, Ill.
CUTTING, Prof. GEORGE R., Auburn, N. Y.
DARLING, H., D.D., LL.D., Pres., Hamilton College, Clinton, N. Y.
DAVIES, Rev. D. OWEN, A.M., D.D., Henderson, Ky.
DAVIS, CHARLES M., A.B., A.M., Bloomfield, N. J.
DAVIS, Hon. JOSEPH J., Louisburg, N. C.
DAVIS, NOAH, Chief Justice, Supreme Court, New York.

DAVIS, NOAH, K., LL.D., Prof. University of Virginia, Va.
DAVIS, P. SEIBERT, D.D., Philadelphia, Pa.
DAY, HENRY, New York.
DEMORREST, W. JENNINGS, New York.
DIKE, Rev. SAMUEL W., A.B., Royalton, Vt.
DIMMICK, Rev. F. M., A.M., Santa Rosa, Cal.
DIX, MORGAN, S.T.D., New York.
DODD, Prof. THOS. J., Nashville, Tenn.
DODGE, D. STUART, New York.
DODGE, Mrs. HARRIETT, New York.
DOWS, Rev. HENRY A., M.A., New York.
DREER, Mrs. MARY, Philadelphia, Pa.
DRINKHOUSE, EDWARD J., M.D., D.D., Baltimore, Md.
DRIPPS, Rev. J. F., D.D., Philadelphia, Pa.
DRIPPS, Mrs. J. F., Philadelphia, Pa.
DRURY, JOHN B., D.D., Ghent, N. Y.
DRYER, Rev. GEO. H., A.M., Medina, N. Y.
DUNCAN, DAVID R., Spartanburg, S. C.
DUNCAN, THOMAS, D.D., Baltimore, Md.
DUNCAN, DAVID R., A.M., Spartanburg, S. C.
DUNN, Rev. BALLARD S., Idaho.
DUPRÉ, OVIDE, New York.
DWIGHT, JOHN, New York.
EDWARDS, Rev. FRANCIS M., Coman's Well, Va.
EDWARDS, J. T., D.D., Randolph, N. Y.
EDWARDS, Rev. JOHN H., New York.
EGBERT, Rev. JOHN P., Buffalo, N. Y.
ELKINS, STEPHEN B., A.M., New York.
ELMENDORF, DAVID K., Tappan, N. Y.
ELLIOTT, JOHN, New York.
ERRETT, ISAAC, D.D., Editor *Christian Standard*, Cincinnati, O.
EVANS, Rev. MORRIS, Millersburg, Ky.
EVERHART, G. M., D.D., Montgomery, Ala.
FABER, Rev. WM. FREDERIC, B.A., Westfield, N. Y.
FAIRBAIRN, ROBT. B., D.D., LL.D., Pres. St. Stephen's Col., Annandale, N. Y.
FAIRBAIRN, H. A., M.A., M.D., Brooklyn, N. Y.
FISHER, JAMES H., M.A., Rochester, N. Y.
FLETCHER, J. H., Newark, N. J.
FLEMING, Rev. THOMAS E., A.M., Ph.D., Davenport, Iowa.
FRESHMAN, Rev. JACOB, New York.
FRISBIE, E. S., D.D., Wells College, New York.
FRY, Rev. CHARLES L., A.M., Lancaster, Pa.
FULTON, E. M., New York.
FUNK, I. K., D.D., Editor *Homiletic Review*, Brooklyn, N. Y.
GAINES, CLEMENT C., Pres. Eastman College, Poughkeepsie, N. Y.
GAST, Prof. FREDERICK A., D.D., Lancaster, Pa.
GERHART, EML. V., D.D., Pres. Theo. Seminary, Lancaster, Pa.

GILDERSLEVE, CHARLES E., Sec. Soc. Prevention Crime, New York.
GLADDEN, WASHINGTON, D.D., Columbus, O.
GOODMAN, Hon. RICHARD, Lenox, Mass.
GOUCHER, JOHN F., D.D., Baltimore, Md.
GRAHAM, WILLIAM, D.D., Nashville, Tenn.
GRAMMER, JULIUS E., D.D., Baltimore, Md.
GRANBERRY, Rev. STEPHEN H., Newark, N. J.
GREEN, Rev. F. M., Kent, O.
HAINES, RICHARD T., A.M., New York.
HALL, Rev. E. E., Fair Haven, Conn.
HALL, Dr. A. WILFORD, Editor *Scientific Arena*, New York.
HALLOCK, JOSEPH A., Principal, Newark, N. J.
HAMILTON, Prof. EDWARD J., S.T.D., D.D., Hamilton College, Clinton, N. Y.
HAMILTON, S. M., D.D., New York.
HAMLIN, Rev. TEUNIS S., Cincinnati, O.
HAMMA, M. W., D.D., A.M., Baltimore, Md.
HARK, Rev. J. MAX, A.B., Lancaster, Pa.
HARPER, Prof. WM. R., Ph.D., Yale College, New Haven, Conn
HARRIMAN, SAMUEL K., M.D., Natick, Mass
HARRIS, JOHN A., D.D., Philadelphia, Pa.
HARRIS, ROBERT, New York.
HARRIS, Rt. Rev. SAMUEL S., D.D., LL.D., Detroit, Mich.
HASTINGS, Rev. HORACE L., Editor "*Anti-Infidel Library*," Boston, Mass.
HATCH, ALFRED E., Baltimore, Md.
HAYS, GEORGE P., D.D., Cincinnati, O.
HENDERSON, HOWARD, D.D., New York.
HENDRIX, EUGENE R., D.D., Bishop, Kansas City, Mo.
HENKEL, SOCRATES, D.D., New Market, Va.
HERVEY, DANIEL E., LL.D., New York.
HIBBARD, FREEMAN G., D.D., Clifton Springs, N. Y.
HILL, Rev. ROBERT W., Salem, Or.
HINE, CHARLES C., Newark, N. J.
HINMAN, Rev. FRANK H., Auburn, N. Y.
HOFFMAN, Rev. HERMAN S., Philadelphia, Pa.
HOFFMAN, Prof. FRANK S., Schenectady, N. Y.
HOLDEN, Hon. WM. W., Raleigh, N. C.
HOOK, EDWARD B., B.S., Augusta, Ga.
HOPKINS, MARK, D. D., LL.D., Williamstown, Mass.
HOPKINS, ISAAC S., Ph.D., D.D., President Emory College, Oxford, Ga.
HOSS, Prof. E. E., D.D., Vanderbilt University, Nashville, Tenn.
HOUGHTELING, JAMES L., Chicago, Ill.
HOYT, THOMAS A., D.D., Philadelphia, Pa.
HUBBARD, Rev. WM. H., Auburn, N. Y.
HUDSON, Rev. HENRY B., Brooklyn, N. Y.
HUNGERFORD, Rev. EDWARD, M.A., Adams, Mass.
HUNT, MTS. SARA K., New York.
HUNTINGTON, Rev. DEWITT C., Olean, N. Y.

HUNTINGTON, CHESTER, A.M., Flushing, N. Y.
HUNTLEY, E. D., D.D., LL.D., Annapolis, Md.
HYATT, Col. THEODORE, M.A., Chester, Pa.
HYDE, WM. DE WITT, President Bowdoin College, Brunswick, Me.
INCH, JAMES R., LL.D., President Wesleyan College, Sackville, New Brunswick.
IVES, WILLIAM JAY, New York.
JARVIS, Hon. THOMAS J., Raleigh, N. C.
JEROME, Hon. DAVID H., Saginaw, Michigan.
JEWELL, Prof. JAMES S., Evanston, Ill.
JEWETT, Rev. E. H., S.T.D., Norwich, Conn.
JOHNSON, Mrs. MARY S., Boston, Mass.
JOHNSON, Prof. HERRICK, D.D., Chicago, Ill.
JOHNSON, WILLIAM M., D.D., Cohoes, N. Y.
JOHNSON, Rev. J. H., Detroit, Mich.
JONES, JOHN W., M.D., Wake Forest, N. C.
JONES, TURNER M., D.D., President Greensboro' College, N. C.
JONES, RICHARD W. A.M., LL.D., President Industrial College of Miss.
JONES, H. K., M.D., LL.D., Jacksonville, Ill.
JUNKIN, W. F., D.D., Charleston, S. C.
KEASBEY, Hon. A. Q., A.M., Newark, N. J.
KELLEY, DAVID C., M.D., D.D., Nashville, Tenn.
KELLEY, Rev. WM. V., D.D., Brooklyn, N. Y.
KELLOGG, CHARLES D., New York.
KENNEDY, JOHN STEWART, New York.
KETCHAM, ALEX. P., A.M., New York.
KETCHAM, WILBUR B., New York.
KITTRIDGE, JOSIAH E., D.D., Geneseo, N. Y.
KNOX, Rev. WILLIAM W., A.M., Bayonne, N. J.
LAMBERTON, ROBERT A., LL.D., Pres. Lehigh University, South Bethlehem, Pa.
LANDRETH, Prof. OLIN H., Nashville, Tenn.
LANSING, Prof. JOHN G., New Brunswick, N. J.
LAGRADE, Rev. WILLIAM H., LaGrange, Ga.
LARKIN, ETHAN P., Ph.D., Alfred Centre, N. Y.
LEDWITH, Rev. WILLIAM L., Philadelphia, Pa.
LEWIS, Rev. ALLEN, Lebanon, Ind.
LINNARD, Mrs. E. L., Philadelphia, Pa.
LITTLE, JOSEPH J., New York.
LITTLEJOHN, Rt. Rev. A. N., Brooklyn, N. Y.
LITTLEPAGE, S. C., Fairfield, Tex.
LODGE, Prof., LEE DAVIS, Washington, D. C.
LONG, DANIEL A., A.M., Pres. Antioch College, O
LORD, CHARLES E., D.D., Newburyport, Mass.
LORIMER, GEORGE C., D.D., Chicago, Ill.
LOWBER, Rev. J. W., M.A., Ph.D., Paducah, Ky.
LOWERY, Rev. D. D., Mt. Joy, Pa.
LOWRIE, SAMUEL T., D.D., Philadelphia, Pa.
LYON, PHÆBUS W., Summit, N. J.,

MACARTHUR, ROBERT S., A. M., D.D., Editor *Baptist Quarterly Review*, New York.
MACCRACKEN, Prof. HENRY M., D.D., Vice-Chancellor University of New York.
MACKAY-SMITH, Rev. ALEXANDER, New York.
MACINTOSH, JOHN S., D.D., LL.D., Philadelphia, Pa.
MAGEE, IRVING, A.M., D.D., Rondout, N. Y.
MAGOUN, GEORGE F., D.D., Pres. Iowa College, Grinnell, Io.
MANGUM, Prof. A. W., D.D., Chapel Hill, N. C.
MARLING, Rev. FRANCIS H., New York.
MARTIN, Prof. DANIEL S., New York.
MARTIN, DAVID G., Oroville, Cal.
MAXWELL, Hon. AUGUSTUS E., Pensacola, Fla.
MCALPINE, Mrs. D. N., New York.
MCBRIDE, WILLIAM A., New York.
MCCANN, JAMES, D.D., Editor *Champion of the Faith*, London, England.
MCCULLAGH, ARCHIBALD, D.D., Brooklyn, N. Y.
MCDOWELL, Mrs. A. W., Pluckemin, N. J.
MCDOWELL, CHARLES E., Bloomfield, N. J.
MCKIM, RANDOLPH H., D.D., New Orleans, La.
MC LAURIN, Rev. J. W., Miss.
MELL, PATRICK H., D.D., LL.D., Chancellor University, Athens, Ga.
MENEELY, CLINTON H., Troy, N. Y.
MERRELL, Rev. EDWARD H., Pres. Ripon College, Wis.
MERRIAM, HOMER, Springfield, Mass.
MERRITT, Rev. STEPHEN, New York.
MEYLER, ASA P., M.B., Ph.B., New York.
MILLS, Rev. CHARLES P., B.A., Newburyport, Mass.
MITCHELL, Mrs. JOHN, Norwich, Conn.
MITCHELL, STUART, D.D., Bloomsburg, Pa.
MOIR, JAMES, New York.
MOOAR, Prof. GEORGE, D.D., Theological Seminary, Oakland, Cal.
MOORE, SAMUEL M., D.D., Tyrone, Pa.
MORAN, Rev. ELLSWORTH E., Asbury Park, N. J.
MORGAN, HENRY A., Aurora, N. Y.
MORROW, JAMES, D.D., Philadelphia, Pa.
MORRIS, Rev. EBENEZER J., New York.
MULFORD, Rev. HENRY D. B., Franklin Park, N. J.
MUNGER, THEODORE T., D.D., New Haven, Conn.
MURRAY, R. D., M.D., U. S. Marine Hospital Service, Biloxi, Miss.
MYERS, Miss A. M., Philadelphia, Pa.
NEWCOMB, Prof. GEORGE B., A.B., Ph.D., New York.
NEWTON, Prof. J. C. C., Warrenton, Va.
NORTH, Prof. EDWARD, Clinton, N. Y.
NORTON, Ex., New York.
NOYES, CHARLES S., B.A., Montclair, N. J.
OBERHOLSER, JACOB, Red Bank, N. J.
OLCOTT, CORNELIUS, M.D., Brooklyn, N. Y.
ORRIS, Prof. S. STANHOPE, Ph.D., Princeton, N. J.

OSBORN, AMOS O. Waterville, N. Y.
OSBORNE, JOHN H., Auburn, N. Y.
PADDOCK, WILBUR, D.D., Philadelphia, Pa.
PALMORE, Rev. W. B., Springfield, Mo.
PANGBORN, Major Z. K., Editor *Evening Journal*, Jersey City, N. J.
PARKER, JOSEPH, D.D., London, England.
PARSONS, WILLIAM H., New York.
PATERSON, Rev. R. A., A.M., New Rochelle, N. Y.
PATTERSON, Rev. J. G., Editor *Presbyterian Observer*, Baltimore, Md.
PATTON, A. S., D.D., Editor *Baptist Weekly*, New York.
PATTON, Prof. FRANCIS L., D.D., Princeton, N. J.
PATTON, Col. JOHN M., Ashland, Va.
PEARCE, Rev. E. H., Danville, Ky.
PECK, Rev. GEO. W., A.M., LL.D., Dansville, N. Y.
PELOUBET, Rev. FRANCIS N., Natick, Mass.
PETRIE, Capt. FRANCIS W. H., Hon. Sec. Victoria Ins., F.R.S.L., etc., London,
England.
PIERSON, EDWARD F., Ramapo, N. Y.
PIKE, Rev. GRANVILLE R. Clayville, N. Y.
PLATT, WM. H., D.D., LL.D., Rochester, N. Y.
POOR, DANIEL W., D.D., Philadelphia, Pa.
PORTER, HENRY K., Pittsburgh, Pa.
PORTER, NOAH, D.D., LL.D., Ex-Pres. Yale College, New Haven, Conn.
PORTER, HUGH, New York.
PORTER, E. PAYSON, Stat. Sec. In. S. S. Assoc., Philadelphia, Pa.
POTTER, ELIPHALET N., D.D., LL.D., President Hobart College, N. Y.
POTTER, Rt. Rev. HENRY C., D.D., New York.
POYNTER, WILEY T., D.D., Shelbyville, Ky.
POWELL, JAMES, D. D., Editor *American Missionary*, New York.
POWELL, Prof. THOMAS S., Atlanta, Ga.
PRATT, Capt. RICHARD H., U. S. A., Carlisle, Pa.
PRIME, WENDELL, D.D., Editor *New York Observer*, New York.
PROUDFIT, Mrs. A. M., New York.
PUTNAM, HARRINGTON, New York.
RANDOLPH, A. D. F., New York.
RANDOLPH, J. J. F., New York.
RANDOLPH, T. E. F., New York.
RANKIN, J. E., D.D., Orange Valley, N. J.
RAPELJE, Mrs. ELLEN E., Mobile, Ala.
REED, Rev. EDWARD A., New York.
RICHARDSON, HAYNES L., M.D., New York.
RIGGS, Mrs. ELISHA, New York.
RIGGS, Rev. JAMES F., Bergen Point, N. J.
RIPLEY, ALLEN P., D.D., Buffalo, N. Y.
RIVERS, R. H., D.D., Editor *Central Methodist*, Louisville, Ky.
ROBERTS, WM. C., D.D., Elizabeth, N. J
ROBERTSON, WM. H., New York.

ROBINS, Rev. JOHN B., Dalton, Ga.
ROBINSON, JAMES L., Augusta, Ga.
ROGERS, ROBERT, New York.
ROOSA, D. B. ST. JOHN, M.D., New York.
ROSS, REUBEN, New York.
ROWE, Rev. EDGAR H., Murfreesboro, N. C.
ROUNSAVILLE, JOHN W., Rome, Ga.
ROYALL, Prof. WILLIAM, Wake Forest College, N. C.
RUDDELL, JOHN, New York.
RUUTZ-REES, Mrs JANET E., New York.
RYLANCE, J. H., D.D., New York.
SABINE, Rev. WILLIAM T., New York.
SCHAUFFLER, Prof. ALFRED T., New York.
SCHIEFFELIN, S. B., New York.
SCOTT, ANDREW, New York.
SCOVEL, SYLVESTER F., Pres. Univ. of Wooster, Wooster, O.
SEXTON, GEORGE, M.D., D.D., LL.D., F.R.G.S., etc., London, England.
SHERWOOD, JAMES M., D.D., Brooklyn, N. Y.
SHIVLER, Mrs. MARGARET, Brooklyn, N. Y.
SHORTT, Rev. WILLIAM, Walkerton, Canada.
SHOTWELL, JOSEPH L., M.D., Memphis, Tenn.
SILLIMAN, HORACE B., A.M., Cohoes, N. Y.
SIBLEY, WILLIAM C., Augusta, Ga.
SKIDMORE, LEMUEL, New York.
SKINNER, Mrs. EDWARD L., New York.
SLEEPER, Hon. JACOB, Boston, Mass.
SMEDES, Rev. BENNETT, A.M., Raleigh, N. C.
SMITH, AMOS B., M.D., Geneva, N. Y.
SMITH, ANDREW H., M.D., New York.
SMITH, GOUVERNEUR M., M.D., New York.
SMITH, Rev. EDWARD J., M.A., Cuyahoga Falls, O.
SMITH, Prof. FRANCIS H., University of Virginia, Va.
SMITH, HENRY P., New York.
SMITH, SAMUEL G., A.M., Ph.D., St. Paul, Minn.
SMYTH, Rev. G. HUTCHINSON, New York.
SOUTHALL, JAMES C., Editor *Central Presbyterian*, Richmond, Va.
SPENCE, Mrs. J. P., Cincinnati, O.
SPENCER, SHELDON S., Lancaster, Pa.
STANTON, Rev. HORACE C., Ph.D., Albany, N. Y.
STEVENS, G. B., Ph.D., D.D., Prof. Yale College, New Haven, Conn.
STEWART, Rev. GEORGE B., A.B., Harrisburg, Pa.
STEWART, THOMAS E., New York.
ST. JOHN, WILLIAM P., New York.
STOCKTON, CHARLES S., D.D.S., Newark, N. J.
STOIBER, LOUIS, Brooklyn, N. Y.
STORRS, RICHARD S., D.D., LL.D., Brooklyn, N. Y.
STROBRIDGE, GEORGE E., D.D., Yonkers, N. Y.

STRONG, JAMES W., D.D., Pres. Carleton College, Northfield, Minn.
STRONG, THERON G., New York.
STURTEVANT, Miss CECILE, New York.
SWART, SAMUEL A., New York.
SWEENEY, Rev. Z. T., Augusta, Ga.
TAYLOR, Hon. JOHN W., Newark, N. J.
TAYLOR, Mrs. WILLIAM S., Brooklyn, N. Y.
TAYLOR, ARCHIBALD A. E., D.D., LL.D., Wooster, O.
THAW, WILLIAM, Pittsburg, Pa.
THIRKIELD, WILBUR P., A.M., S.T.B., Dean of Grammar School of Theology, Atlanta, Ga.
THOMAS, JESSE B., D.D., Brooklyn, N. Y.
THOMPSON, CHARLES L., D.D., Kansas City, Mo.
THOMPSON, HUGH M., S.T.D., LL.D., Bishop of Mississippi.
THWING, Rev. CHARLES F., Cambridge, Mass.
TIFFANY, OTIS H., D.D., Philadelphia, Pa.
TILLETT, Rev. WILBUR F., D.D., Vanderbilt University, Nashville, Tenn.
TODD, E., M.D., New York.
TRAVER, Rev. ALLEN, Junius, N. Y.
TREAT, E. B., New York.
TROWBRIDGE, Prof. WILLIAM P., New Haven, Conn.
TRUMAN, Mrs. EMILY M., Owego, N. Y.
TUCKER, HENRY H., D.D., LL.D., Atlanta, Ga.
TUCKER, WILLIAM, D.D., Mt. Gilead, O.
TUDOR, WILLIAM V., A.B., A.M., D.D., Norfolk, Va.
TURNER, ALBERT L., M.D., New York.
TYLER, Rev. Benjamin B. (Associate Ed. *Christian Standard of Cincinnati*), New York.
UCHIMURA, JON KANZON, Amherst, Mass.
VAN ANTWERP, Mrs. ELIZABETH, New York.
VAN DYKE, JOSEPH S., A.M., D.D., Cranbury, N. J.
VAN EMBURG, GEORGE L., New York.
VAN SLYKE, JOHN S., A.M., D.D., Kingston, N. Y.
VAN VLECK, JOSEPH, Montclair, N. J.
VERDERY, MARION J., New York.
VINCENT, JOHN H., D.D., LL.D., Plainfield, N. J.
VINCENT, MARVIN R., D.D., New York.
VIRGIN, Rev. SAMUEL H., D.D., New York.
VOORHIES, Mrs. MARY M., Brooklyn, N. Y.
WADDEL, JOHN N., D.D., LL.D., Chancellor So. W. Pres. University, Clarksville, Tenn.
WALLACE, ADAM, D.D., Ocean Grove, N. J.
WALLER, Rev. D. J., Jr., Bloomsburg, Pa.
WARDLAW, Rev. ALBERT G., A.M., Culpeper, Va.
WARNER, LUCIEN C., A.M., M.D., New York.
WARREN, EDWARD, Bey, M.D., C.M., LL.D., Paris, France.
WATSON, LORENZO D., S.T.D., Ph.D., LL.D., Geneva, N. Y.

WAYLAND, H. L., D.D., Ed. *National Baptist*, Philadelphia, Pa.
 WENTWORTH, JOHN B., D.D., Buffalo, N. Y.
 WESTBROOK, JOHN C., New York.
 WESTWOOD, HENRY C., D.D., Providence, R. I.
 WHEATLEY, RICHARD, D.D., New York.
 WHEELER, Prof. JOHN H., University of Virginia, Va.
 WHITEHEAD, Rev. J. HENRY, Passaic, N. J.
 WHITNEY, GEORGE H., D.D., Pres. Cen. Col. Inst., Hackettstown, N. J.
 WHITON, Rev. J. M., Ph.D., Tremont, N. Y.
 WILKINSON, JOHN G., Newburgh, N. Y.
 WILKINSON, Prof. WILLIAM C., D.D., Tarrytown, N. Y.
 WILLIAMS, Rev. G. MOTT, Detroit, Mich.
 WILLIAMS, Prof. HENRY S., Philos. Doc., Cornell Univ., Ithaca, N. Y.
 WILLIAMS, Rev. JOHN E., Hornellsville, N. Y.
 WILSON, JAMES P., D.D., Newark, N. J.
 WILSON, JOHN A., A.M., Wooster, O.
 WILSON, Prof. WM. D., D.D., LL.D., L.H.D., Cornell Univ., Ithaca, N. Y.
 WINCHELL, Prof. ALEX., LL. D., Ann Arbor, Mich.
 WINSLOW, Rev. WM. C., B.A., A.M., Boston, Mass.
 WITHERSPOON, THOMAS D., D.D., LL.D., Louisville, Ky.
 WOOD, Rev. CHARLES, Germantown, Philadelphia, Pa.
 WOODS, Miss ELIZA, New York.
 WORCESTER, E. D., New York.
 WORRALL, JOHN M., D.D., New York.
 WRIGHT, THOMAS T., Pensacola, Fla.
 YATES, EDWIN A., D.D., Wilmington, N. C.
 YEREANCE, JAMES, New York.
 YOUNG, Prof. CHARLES A., LL.D., Princeton, N. J.

IN MEMORIAM.

The Institute cherishes the memory of the following deceased members:

1882.

ALLEN, WILLIAM H., LL.D., President Girard College, Philadelphia, Pa.
 GRAHAM, Gen. JAMES LORIMER, New York.
 SMITH, MARSHALL B., D.D., Passaic, N. Y.

1883.

COLLINS, Rev. CHARLES TERRY, Cleveland, O.
 EWER, FERDINAND C., S.T.D., New York.
 MALLETT, Gen. EDWARD J., New York.
 MARTIN, Prof. BENJAMIN NICHOLAS, New York.
 MEANS, ALEX., D.D., LL.D., Oxford, Ga.
 PHELPS, Prof. MOSES STUART, Northampton, Mass.

1884.

COLLISSON, Rev. HENRY M., Chicago, Ill.
HALSTED, Gen. N. NORRIS, Newark, N. J.
HORN, G. W., D.D., Colorado Springs, Col.

1885.

BRECKENRIDGE, Rev. EDWARD W., Binghamton, N. Y.
BROWN, SAMUEL GILMAN, D.D., Utica, N. Y.
CONSTANT, SAMUEL S., New York.
HAWLEY, CHARLES, D. D., Auburn, N. Y.
KERR, Prof. WASHINGTON C., U. S. Geol. Sur., Asheville, N. C.
SHAFESBURY, ANTHONY ASHLEY-COOPER, Earl of, London, England.

1886.

COOPER, J. B., D.D., Allegheny, Pa.
DODD, Prof. JAMES W., LL.D., Vanderbilt University, Nashville, Tenn.
DOUGLASS, THOMAS, New York.
DUNNING, WM. H., Brooklyn, N. Y.
FORSYTH, JOHN, D.D., Newburgh, N. Y.
HAINES, MRS. F. E. H., New York.
LOTHROP, SAMUEL K., D.D., Boston, Mass.
STURTEVANT, Prof. JULIAN M., D.D., LL.D., Jacksonville, Ill.
TRENCH, Rt. Hon. and Most Rev., R.C., D.D., Archbishop of Dublin, Ireland.

1887.

CONGER, Hon. A. B., New York.
DUFFIELD, Rev. SAMUEL W., Bloomfield, N. J.
GILL, Rev. WM. J., Schorley's Mountain, N. J.
GREEN, Rt. Rev. WILLIAM M., Sewanee, Tenn.
HITCHCOCK, ROSWELL DWIGHT, D.D., LL.D., New York.
HOPKINS, MARK, D.D., LL.D., Williamstown, Mass.

CHRISTIAN THOUGHT.

PAUL'S PSYCHOLOGY.

[A paper read before the American Institute of Christian Philosophy, August 19, 1887.]

BY ISAAC S. HOPKINS, PH.D., D.D.,

President of Emory College, Georgia.

I PROPOSE a study of human nature from the standpoint of the Apostle Paul. As no claim of authority for the views presented is set up, so no apology is offered for the temerity of the undertaking. Thoughts, which do not rise above the dignity of personal opinion, may have very little value as thoughts, but there is value in the fact that they are personal, and in a study like the present may at least serve the purpose of illustrating how the thought processes and forms of a great intellect have objectified themselves to an earnest and willing learner. If the effort at interpretation shall result in failure, and shall suggest very little that is worthy of consideration, it will be a satisfaction to your speaker to know that occasion has been given for an investigation, not often nor distinctively enough attempted.

Apart from the question of Paul's inspiration, his views on any subject can not be without profound interest and value. The order of his intellect, the character of his training in the schools, the intensity and activity of his thought, command for him a degree of attention and respect accorded to but few of the great thinkers who have appeared among men. And in a comparison of the topics upon which he is entitled to be heard, that of the philosophy of thought is second only to that of theological dogma, if indeed to that. The conception which men have been groping after through the ages, and even now only dimly

hold, is that God is the centre of all true philosophy, and the inspiration of the Almighty alone giveth man understanding; and this conception Paul caught, whether by intuition or inspiration, at the beginning of his career, and wrought in the light of it until the end. We may safely infer that he had thought over and through the profoundest psychological problems of his and of all time. Whatever the systems of philosophy of his day could contribute to growth and culture, he had appropriated. He was prepared to meet Stoic or Epicurean, sophist, philosopher, or rabbi, in public discussion or private conference, on the adversary's own ground, and with the adversary's own weapons, and always with confidence and success. The most casual reader of his epistles can not fail to note that they abound in metaphysical niceties and philosophical statement, and one meets at every point the evidence of the most profound psychological research. But there is the building only—the scaffolding has been torn away. Absolutely harmonious as the Apostle's thought is with the best accredited philosophy of mind, there is the rarest occurrence of any thing like categorical statement of psychological law. What we learn must be learned by careful inference and earnest study. What value such study may have, as compared with the method by formal statement, we need not stop now to discuss. Each method has merits peculiarly its own, and their comparative excellence is not easily decided. To be on trial as to one's opinions is apt to put one on the defensive, and make him a defender of his views, rather than an expounder of the truth. The witness on the stand sworn to tell the truth, the whole truth, and nothing but the truth, without evil intent, under urgent questioning, sometimes falls into confusion and error. On the other hand, there are undertones in thought as in speech, which possess in themselves a power of revelation, and which are best heard and most communicative when unpremeditated. The dress parade may be an exceedingly impressive affair, but we know men best when off their guard. The unstudied attitude best displays native qualities. No theory or belief is so thoroughly on exhibition as when it is at work moulding thought and determining action.

Considering the confusion of tongues in the branch of philos-

ophy now under discussion, we are tempted to deplore the lack of more formal statement than the Apostle has given us. We are disposed to count it no small gain if such a master had forever set at rest the strifes of conflicting schools. Such a wish, however, bears upon its face the stamp of vanity and unwisdom. The difficulty lies, not in the teacher, but in the subject. The facts with which the subject deals are revealed chiefly in consciousness. Even where they are objective, and we study the nature of mind in its products, the knowledge thus gained must come back to our own consciousness for interpretation or verification. The commonest speech of the street presents psychological problems which have never been solved. The language in which we seek to describe our own mental processes is unintelligible, except to those who have had similar experiences. We need not, therefore, be surprised to discover that even this master of thought found, as other masters have found, a blank wall beyond which his philosophy could not pass, and that he was obliged to rest in the conception of the infinite possibilities of the human spirit, and to wait for the fuller manifestation of the sons of God.

The fact of the Apostle's inspiration, therefore, is not adduced in proof of the authority of his views. It is not needed. What he has said, both by direct statement and by clear implication concerning the nature of man, appeals to us irresistibly by that supreme element of truth which transcends the ordinary forms and force of argument. Thus much, however, may be said on this point. Inspired statement, both in the subjective conditions out of which it arises and in the objective purpose which it is intended to serve, never violates or acts out of harmony with the laws of mind. It is differenced from other statement, not so much by its essence and form as by its energy and authority. The spirits of the prophets are subject to the prophets. Mind, in its healthful normal action, quickened and aided by the Holy Spirit in the apprehension and presentation of truth, is the simplest conception of Christian inspiration. Whether, therefore, we study the utterances of Paul as they give insight to his own mental processes, or as they help us to formulate the general laws of mind, the fact that they are true rests upon the insight of reason, rather than upon the authority of inspiration.

In pursuance of our purpose, let us consider some of the views held by the Apostle concerning the human mind, its conditions, methods, and powers.

The trouble is how to choose in the mass of material spread out before us in the epistles. A critical examination of even those passages which, from their richness and fullness of statement and suggestion, are most striking, would more than occupy the time allotted to this paper. Such an examination would possess a degree of unsatisfactoriness, in that it would not lead to results sufficiently general and comprehensive. We would have a rich mosaic, stately and formal, but lacking in the elements of vitality and order. It would be better to find, if we can, the great tides of the Apostle's thought, and when we have felt the sweep and swell of these, examine the currents and counter-currents which enter into them.

We must go back a step in our study and consider some of the generalizations of the Apostle in his anthropology. And, first, as to the origin of man. Paul everywhere assumes the creation of man in common "with heaven and earth, and the sea, and all things that are therein"—Acts xiv. 16. So, also, he assumes that as man was created by Divine power, he is sustained by Divine power, that "in him we live, and move, and have our being"—Acts xvii. 28.

There is no room in this conception of the origin and continuation of the human race for a theory of evolution. If the doctrines of the materialism of Paul's day, which, it may be remarked, contained the germ and type of all later materialism, had possessed any merit of any sort in the estimation of the Apostle, it is simply inconceivable that he should have passed them by with so profound, not to say so contemptuous, a silence.

The common brotherhood of men was likewise a part of the Apostle's creed. He may have drawn his view from the simple narration in Genesis, or he may have reasoned from the unity of God to the unity of the race; but certainly he held that God "made of one blood all nations of men," and upon this fact he based the obligation of all men to seek God, and argued from it the expectation that all might seek with the hope of finding.

Upon these two facts, the Divine origin and common brother-

hood of man, the most comprehensive and vital doctrines of the Apostle's theology were based. Only as the first-begotten of the Father could Christ become the high-priest of our profession, the first-born among many brethren. Without this brotherhood of Christ with men and of men with each other there is no significance in the doctrine of Christ's humanity. The point of interest for us now is not in the theological doctrine, but in the psychological fact, that in God's fatherhood and Christ's sonship and man's brotherhood lie the declaration and revelation of a community of nature, which not only supposes but makes necessary a community of intelligence between God and men. Again and again the Apostle meets the national and religious prejudices of the Jewish mind with particular statements of the common interest of Jew and Greek, male and female, bond and free, which statements, while primarily intended to meet a question of religious privilege, yet involve, if they do not directly express, the same thought of a common ground upon which the divine intelligence meets and mingles with the intelligence of men. Incidental to this and suggestive of a still broader conception of a universal type of intelligence, are the numerous references in the epistles to the various orders of angelic beings. What classification may have existed in the Apostle's mind of these spiritual beings we have no means of knowing. The main purpose in his terse yet exhaustive expressions is to show the supremacy of Christ. It is doubtful if some of his terms are to be interpreted as referring to angels, but occurring in the same sentences with others which do, and marking some sort of gradation of powers or intelligence, with Christ as the acknowledged head, they would seem to indicate the Apostle's belief that "principality and power and might and dominion and thrones and every name that is named, not only in this world but in that which is to come," proceeded forth from the Creator of all upon some general plan which linked them together intimately in intelligent relationship to Christ and each other. If it were necessary to confirm a truth so obvious, such confirmation would be found in the statement of the Apostle to his shipwrecked associates, that there stood by him in the night an angel of God, bringing him hope and cheer (Acts xxvii. 23); in the interest of angels in the mystery of

redemption (I. Tim. iii. 10); in the word spoken by angels (Heb. ii. 2); in the declaration that we shall judge angels (I. Cor. vi. 3); in the proclamation, "let all the angels of God worship him" (Heb. i. 6); and in the high privilege of believers in Christ who have come to an innumerable company of angels (Heb. xii. 22).

I approach with much hesitation a point in the Apostle's treatment of the constitution of human nature. I refer to those views which are expressed in connection with his discussion of the resurrection, and to those which are implied in the passages containing conjointly or separately the terms soul and spirit, as these are distinguished from each other and from the body. Of like difficulty are the cognate terms, carnal mind, natural man, natural body, spiritual body.

To seek to settle what may have been the Apostle's view from the philological standpoint would be as tedious as it would be fruitless. This ground has been gone over so often and with such unsatisfactory results, that one turns from it with a degree of hopelessness, not so say impatience. As illustration of the value of this kind of reasoning, one need but refer briefly to the exhaustive and learned criticisms extant on the forms of Hebrew expression and their equivalents in Greek. The Hebrew *nephish*, Greek *psuche*, English "soul" or "life," with the radical signification of breath, occurs in the Scripture in many different meanings. Seven times the Hebrew term is translated in the Old Testament living creatures and eighty times life. In the New Testament *psuche* has in twenty-three places one or the other of these significations. Forty-four times these terms denote the bodily appetites and passions; one hundred and three times the rational soul or mind, with its emotions and affections; fifty-six times they are applied to the human person; eighteen times they are applied to God, and fourteen times to a dead body, or persons after death.

Ruahh Hebrew, *pneuma* Greek, "spirit" English, occurs twenty-three times in the sense of breath; thirty-nine times in that of wind; fifteen times for animal life; ninety-five times in the sense of spirit, mind, the seat of thought, feeling, will, passions, and affections; thirty-two times in reference to God as a

spirit, and twenty-three times in the sense of a spirit agent, without respect to moral character or distinction as between angel, demon, and man.

Nishāmāh Hebrew, *pnoe* Greek, "breath" or "spirit" English, occurs twenty-three times in the sense of breath and three times as mind or intelligence.

Leb Hebrew, *kardia* Greek, "heart" English, is used seventeen times for the organ of the body; twenty-five times for the thinking faculty, and thirty-six times for the various meanings of sensation and emotion.

The variety and complexity of the Apostle's use of these expressions were due not to varying and contradictory phases of thought, but to the many-sided truths with which his mind was saturated, and have for their explanation the inadequacy of language as language existed in his day, and indeed as it has always existed.

We can not infer a purpose on his part to classify closely when his language suffered under this disability, and when, as in some of the passages referred to, his object was to press certain issues to which such a classification was not essential. For instance, in the epistle to the Romans, Paul dwells mostly on the distinction between flesh and spirit. Rome was in the full tide of the corruption which has made her name a by-word through the ages, and this corruption took the double form of sensual debauchery and brutal cruelty. Consider a few of the terms by which the Apostle characterizes the spirit and conduct of the people in the Roman capital. Ungodliness, vain in their imaginations; changing the glory of the uncorruptible God into an image made like to corruptible man, and to birds and four-footed beasts and creeping things; uncleanness and vile affections; wickedness and maliciousness; murder and malignity; inventors of evil things; without natural affection and unmerciful; these are a part of the dark catalogue. What wonder that the background of the Apostle's thought should be modified by the peculiar danger to which they were exposed who were "called to be saints, dwelling at Rome." As a wise father sees and seeks to avert the peculiar perils of an untutored child, so Paul, with tender interest and true insight, singles out the peculiar phases of danger to the

Roman Church, and builds his barrier against the tide of evil which threatened the spirit through the flesh.

The case was different when he came to write to the Church at Corinth. For these Christian brethren he could thank God that they had been "enriched in all utterance and in all knowledge." And from this very source there was imminent peril to them. Eloquence and learning threatened to obscure the higher wisdom and truer culture of their spiritual nature. He appeals to them on the ground of their higher nature against the scandalous practices which had crept in among them, and against the profitless discussions which had brought dissension and strife. His thought takes as a background the difference between the natural, the psychical—the soul-man and the spiritual man. In other words, whereas he had contrasted in his epistle to the Romans the flesh and spirit, he dwells now upon the difference between the soul and spirit. This thought of the Apostle, namely, the relation of body and soul, and soul and spirit, culminates in the fifteenth chapter of his wonderful first epistle to the Corinthians. It would be foreign to the purpose of this paper to enter into a discussion of the doctrine of the resurrection. The doctrine itself, however, and especially the Apostle's exposition of it, offers the occasion of the most fruitful and suggestive meditation on this the most absorbing of all problems, the character, endowments, and destiny of man.

I barely mention one or two passages from the epistles, which seem to have special point and significance in the way of classification. To the Thessalonians (I. v. 23) the Apostle says: "I pray that your whole spirit and soul and body be preserved blameless," etc. "The sword of the Spirit pierces to the dividing asunder of soul and spirit and of the joints and marrow, and is a discerner of the thoughts and intents of the heart" (Heb. iv. 12). "The unmarried woman careth for the things of the Lord, that she may be holy both in body and in spirit" (I. Cor. vii. 34). "But I keep under my body and bring it into subjection: lest that by any means when I have preached to others, I myself should be a castaway" (I. Cor. ix. 27).

Without seeking to trace minutely each thought and sugges-

tion comprehended in these statements, I offer the following general reflections.

The Apostle recognized in full the interaction and mutual dependence between the body and the soul. To the first of these he ascribed a material organization. He conceived it as possessing endowments which fitted it for the highest expression of the spiritual nature in the present environment.

He considers this environment as the preparation for and introduction to a higher and more noble one, and pleads with all the powers of his logic for the existence of the soul in a body equally adapted to its wants in a future life. He more than intimates the laws and conditions under which this new relation is to be assumed. It is not pressing the figure too far to see in the "bare grain" which is sown the germ and pledge of the resurrection body. It is impossible to persuade the normal mind—or let us say the average mind—that this body so familiar to us will leave no memory of itself in the new relation. Even when the vision which comes to the sick man, or the man who has been maimed and marred in his body, shall be realized in a faultless investiture of the soul, the contrast will itself be a comparative experience under bettered conditions. The Apostle's contrast is not so much between the soul and the spirit as between the soul-body and the spirit-body. The personality inheres in the soul and is ideally superior to its tenement under either condition; it claims the faithful service of either body, to interpret and express its action to other personalities. Summary as are the statements the Apostle gives us, there is potentially in his thought a recognition of the myriad influences operating upon the soul through the senses and of the mastery belonging to the soul over the body. These influences exist and operate through avenues material and perishing, but they themselves abide forever. Would it not be a strange assumption that this personality modifies only for time the forces which it must struggle so hard to subdue and control, and that the dissolution of the earthly body is only the occasion and signal of a warfare to be fought over and a victory to be achieved in new and untried fields? Furthermore, in speaking of the most grievous sin which a man can commit against his own body, the Apostle says, "Know ye not that your body is the tem-

ple of the Holy Ghost," and in another place declares with terrific emphasis, "If any man defile the temple of God, him shall God destroy." Not to press this point beyond limits, it seems fairly inferrible that the dignity and sanctity with which the body was invested in the thought of the Apostle pointed to its development as the organ of the soul in harmony with the development of the soul itself, and that the resurrection body differs from the body of our humiliation, unfortunately rendered in our version vile body, chiefly in that it offers a wider scope and a better adaptation to powers which by training and development have taken on new activities and broader interests.

We have proceeded thus far in our discussion, partly in the light of facts within our own experience and partly by the aid of truths which commend themselves to the reception and endorsement of Christian thought. What now of the third point in the classification of the nature of man as deducible from many passages in the epistles? What does the Apostle mean when he speaks of the spirit as distinct from the soul? Does he speak of the spirit as distinct from the soul? It would not be too much, perhaps, to say that this question involves the whole of Paul's philosophy. Certainly it takes in the fundamental data of his theology.

It lays bare all the deep-reaching principles and purposes which had governed his life and prompted his activity, since for answer to the question, "What wilt thou have me to do?" he listened to the voice of a divine call and sought to know the mind of the Spirit. From his own profound study of man by observation, in his own consciousness, and, may we not now add, by the inspiration of divine wisdom, he saw the nature of his race in its reality and in its possibilities, and, as these demanded, he formulated the truth which came to him by revelation. Some things he certainly had which he held in reserve, not because he was averse to imparting them, but because they could not be adjusted to minds lacking his experience. Of the distinction between soul and spirit Paul's view is in harmony with the entire Scriptural doctrine, but comes to the surface in perhaps more forms and under more striking conditions than from any other writer in the sacred record.

Regarded in its entirety, this view presents man as a highly endowed personality, with potentialities and capabilities of infinite extent. This endowment has its lower and its higher quality, its privileges and its perils. It involves a body itself under divinely ordained laws, which are not subject to the personality, but are charged with the penalty of their violation, and which partake of the dignity of all law. The exquisite adaptation of this body to the uses of the personality has in it the quality which attends all excellence, namely, the liability to extreme antagonism as a consequence of abuse or misuse. This quality is so pronounced, and so positive in the body, that unconsciously we attribute to it something of sentiency, and in our discussion of it can not well avoid a kind of personification, which, while it is inaccurate, need not mislead or deceive us. In this form the Apostle often refers to it, as when he says the "flesh lusteth against the spirit," and "flesh and blood can not inherit the kingdom of God;" "I keep under my body." Possessing no moral quality, it yet, as has already been said, reacts with tremendous energy under provocation against the spiritual nature, and often works remediless ruin. This personality involves the exercise of intelligence, and affection, and will. Paul calls it the soul. It is the man himself, and in it resides the unity of consciousness. It stands related to the body as its natural master, and through its servant holds communion with other personalities like endowed with itself. Resigning its high place, and subjected to its slave, it becomes "carnal," and "with the flesh serves the law of sin." Remaining inactive, "living after the flesh," seeking no higher alliance, this ego, this personality, with its high endowments and divine possibilities, suffers and loses, and morally dies. There can be no question, I think, as to the correctness of this interpretation of Paul's view of the relation of soul and body. His method of thought is concrete always, but the inference is justified by innumerable passages, and by rational interpretation.

Nor can there be any reasonable doubt of his further view, namely, that upon this dual nature there is needed the operation of a principle not inherent in it, but kindred to it, and this principle is, in his phraseology, the spirit. It may be necessary,

at this point, to insist, as has been already intimated, that while this discussion is not purposely in the line of the Apostle's theological beliefs, yet it is impossible to separate these from his views of the intellectual and spiritual constitution of man. Nor is it proposed to open the question on its theological side of original sin, or native depravity, or by whatever name it may be called. It is beyond question that, in Paul's estimation, some loss had occurred to the race as it existed in the divine ideal at the time of its creation, and that this loss was to be repaired before man could reach the full estate of sonship to God. This restoration, this rescuing, this redeeming of man so that he might again realize the nearness of his Father, and the indwelling of His Spirit, is the essence of the Gospel, and the inspiration of the Apostle.

His theory supposes that man, even in his unregenerate state, is not destitute of the indwelling Spirit of God. Writing of those, against whose ungodliness and unrighteousness the wrath of God is revealed from heaven, and who hold the truth in unrighteousness, he says, "that which may be known of God is manifest in them; for God hath shewed it unto them." This idea of the self-revelation of God to the human mind does not imply a supernatural agency, as supernatural is ordinarily understood. It is the ordinary process and condition by which God makes it possible for the man to take the first step towards complete harmony with Himself. It is the immanence of God to the human soul, and which Paul taught in happy phrase when he encouraged the Athenians to "seek the Lord if haply they might feel after Him and find Him, though He be not far from every one of us." "The invisible things of Him from the creation of the world are clearly seen," says the Apostle further, "being understood by the things that are made, even His eternal power and Godhead; so that they are without excuse." In this terse and compact statement we have given not only the fact of God's display of Himself, but a declaration of the invisible attributes which constitute His eternal power and Deity. It is no discount on the value of the statement that it furnishes also the method of the revelation, namely, "being understood by the things that are made." It is clearly set forth that God's existence and char-

acter, His invisible attributes have become distinctly visible, being mentally apprehended under the normal action of the human intelligence. The inference from all this is not a violent one, that the Apostle's view was in harmony with other Scripture, and with the dictates of sound reason, that what is best and highest in man is that which the fall left him of the image and spirit of the Creator.

Between this state of the man in which he is the recipient in a large measure of the beneficent work of the Divine Spirit, and that condition in which all his powers have been brought into harmony with the divine will, into captivity to the will of Christ, we find the difference between the natural man and the spiritual man, and this difference is the difference between darkness and light, between death and life, the difference between man as the Gospel finds him, and man as he existed ideally in the mind of God in creation.

This, too, is in harmony with the ripest result of the Christian conception of God as absolute spirit, perfect in power, wisdom, and love, ever acting upon the human consciousness, and seeking to reconcile the world to Himself. This Christian conception, inheriting all that is of value in the ancient philosophies, enriched by inspired thought as given in the Scripture, acting for itself under every stimulus of the informing spirit, accepts God as the absolute Reason, not as the stoics taught, an impersonal, unconscious reason, but eternal and archetypal, active and energizing in the universe of matter and mind, through whose revelation of Himself, the human reason,—a gift from Himself, a part of His own essence, may realize all ideals of perfection and good, and may come to know all truth and all law.

With these suggestions we are prepared to consider what stands forth as the great central thought in Paul's psychology, namely, the relation of the human mind in all its powers to the truth as it is in Jesus. In all this relationship the Apostle makes much of human consciousness. Beginning with the dawn of the religious life when the soul is under arrest by the Spirit and brought to the contemplation of its need and peril, along the whole course of the new life, through the deliverance from the bondage of sin, with the accompaniments of prayer and tempta-

tion, of the witness of the Spirit and the witness of a good conscience, the introspection and constant reference of the conduct to the standard of right, there appears the continued and unmistakable reference to facts of consciousness.

The profoundest significance of sin, the ultimate evil of it, as far as man is concerned, is the separation it has brought about between him and God. One of its most persistent and pronounced effects is to leave him out of harmony with the divine will, the arrest of that development of the spirit which more than all else proclaims his immortal character and kinship to God. It is the first object of the Gospel to awaken in his consciousness a realization of this want. The question of the Apostle himself in the way to Damascus had this element in full measure. It was the natural expression of a desire to stand in such relation of obedience as supposed a restored harmony and a changed life. The normal experience of the Christian life—in unnumbered cases—points unmistakably to the same fact. Conversion, stripped of the incidental and conventional meanings which varied experiences and temperamental differences have put into it, always means a process in which the steps are few and simple. The consciousness awakes to the fact of sin in a degree not before experienced, an effort is made to realize the presence and power of the divine Spirit, there is a going forth of the nature towards a being of infinite grace and love and a realization of a relationship of unspeakable privilege, and a hearty surrender of the entire being to the divine control,—these outline a process familiar to all who have passed through it and which can not be intelligently presented to those who have not. In all these steps of the soul towards the new and higher life, the consciousness is in new relations to the thought of God, and the outcome is a new and beautiful experience to the soul itself; it is the new birth of the soul. “For what man knoweth the things of a man, save the spirit of man which is in him? even so the things of God knoweth no man, but the Spirit of God” (I. Cor. ii. 11).

This appeal to consciousness in the religious or spiritual life is still further illustrated in the Apostle's reference to those tests by which the mind may be satisfied concerning one's relation to God.

Two of these tests or witnesses are of special interest to us now, and they are conjoined in the same passage in a very striking statement: "The Spirit itself beareth witness with our spirit that we are the children of God."

Two parallel statements occur: "Our rejoicing is this, the testimony of our conscience that in simplicity and godly sincerity we have had our conversation in the world," and "Because ye are sons, God has sent forth the Spirit of His Son unto your hearts, crying, Abba, Father." There are two classes of facts here distinctly recognized, as concerned with consciousness. First the moral affections of which we are conscious and upon the conscious possession of which we base a judgment of our relation to God. This is in brief the "witness of our spirit," "the testimony of our conscience."

The other fact stands on a different footing with consciousness. If it is a judgment at all in the technical sense, it is identical with the act of consciousness upon which it is based; in other words, it is an act of consciousness itself. The meaning of the Apostle seems to be that the life of God in the soul of the regenerate man is the direct and immediate object of consciousness.

If the question should be raised as to why these things are emphasized in this discussion when they seem to belong more to the pulpit than to the platform, my answer would be that they have great value as illustrating many points pertinent to the discussion.

The testimony of consciousness in religious experience is like the testimony of consciousness in other experience, intelligible only when translated in consciousness, and it is equally authoritative and equally valid for religious truth as for any other kind of truth.

To this man of the Apostle's thought which we have tried so inadequately to outline, there belong possibilities and powers of knowledge in the contemplation of which the Apostle never grows weary. Himself "rude in speech though not in knowledge," he counseled and practiced the modesty of real knowledge and rebuked in strong terms the pretense of wisdom and knowledge common in his day. "Knowledge," he tells the Corinthian Church, "puffeth up, but charity edifieth. And if any man think

that he knoweth any thing, he knoweth nothing yet as he ought to know." The themes upon which he exercised his own intellectual gifts and which he commended to his Corinthian brethren, were not those of "the wisdom of this world, nor of the princes of this world that come to nought; but the wisdom of God in a mystery, even the hidden wisdom which God ordained before the world unto our glory." The progressive power of the mind he believed in and waited for the revelation by the Spirit of the deep things of God. Some problems he relegated to the higher activities of the future life, and expected to "know even as also he was known." He recognized in his own intellectual life as no other man has done both "world-consciousness" and "God-consciousness." His theory of knowledge took hold on two worlds, and in its development under circumstances the most depressing and disheartening, he was able to declare that God had not given him the spirit of fear, but of power and of love and of a *sound mind*.

CHRISTIAN EVOLUTIONISM AND ITS INFLUENCES ON RELIGIOUS THOUGHT.

[Read before the Institute, August 24, 1887.]

BY PROF. DANIEL S. MARTIN,

New York.

CHRISTIAN EVOLUTIONISM, many have said, is an impossible,—a contradiction in terms. So is solidified water, to one who has never seen ice or snow. But the most incredulous native of the tropics must yield assent, when the marvel is brought to his hand and presented to his eye: and so, too, I sincerely hope that if any who shall hear or read these words have thus far denied or disbelieved the possibility of a Christian Evolutionist, they may at least be led to recognize his existence, even though they should not accept his views.

Here, as in every other department of thought, very much depends on the use of words; and hence it is so often found that difficulties and conflicts are more in word than in fact. It is proper and necessary, therefore, that the terms employed here be clearly defined at the outset.

The word Christian is used in its ordinary evangelical sense. It assumes and includes, of course, the fundamental belief in a personal God, holy, loving, and infinite, and in the Scriptures as a divinely-inspired revelation of Him to men. It implies the belief in the historic Christ,—a unique personality, uniting a Divine with a human nature,—living as an example and dying as an atoning Savior, for all who will receive Him in this twofold relation. It implies the belief that this atonement was absolutely necessary for the deliverance of men from an evil and ruined condition, somehow involved in their present state of existence; and also that it is absolutely sufficient for the perfect deliverance and development, through all coming states and stages of being, of every one that accepts it.

The word Evolution is used in its strict scientific sense,—etymologically, an *unfolding*. It assumes and includes the belief that

the entire universe is governed by a connected system of laws, binding it together as a COSMOS. It involves the belief that all material existences known to us, have assumed their present forms through many successive stages of development, under the operation of this Reign of Law. It implies the belief that these processes have generally (though not of necessity always) required periods of time proportioned to the magnitude of their results; and that these statements apply alike to the physical, the organic, and the intellectual world.

Many have asserted that these two sets of views are essentially irreconcilable;—that they are what logicians call “mutually exclusive.” Let us see if, on the other hand, they may not prove perfectly capable of harmonious adjustment and mutual support.

My aim will be to show that, with certain great fundamental principles once laid down and assured, the utmost freedom of evolutionary thought is not only perfectly consonant with Christian belief, but interlocks with it in a most striking manner, giving a scientific clearness to religious ideas, and a comprehensive unity to our whole conception of the universe,—physical, intellectual, and spiritual,—past, present, and future.

But here I shall be met with the objection, that this is not Evolution, according to the ideas and definitions of its founders. To this I reply, that the first ideas and definitions of a system or a law, are rarely or never the fullest and clearest expression of it. The name, however, if well chosen, may and does remain, even though the doctrine receive important additions or limitations. This point might be amply illustrated, were there time and need to do so, from various branches of science. In holding and using the term Evolution, therefore, I deny that there is any obligation to regard it as if the first partial and one-sided views and definitions of it were never more to be modified, limited, or enlarged. On the other hand, the name expresses, as no other does, certain very important methods of conception, which have a great, a deserved, and an ever-increasing influence on the thought of our age. It is a noble word, though it has often been misused, and has hence acquired an association and impression that are no real part of the system of thought which it stands for. From that

misuse and misconception, it is the function of the Christian evolutionist to free it.

I hold, therefore, that it is perfectly possible and perfectly consistent to unite these two sets of views into a grand connected scheme which shall recognize and embrace, not separate parts and aspects of the universe, but the twofold character which it ever presents to the philosophical inquirer,—that of God *and* Nature, the mediate and the immediate, the fundamental and the secondary. Such a view bases itself on the eternal thought and purpose of the infinite God, and then sees Him embodying His thought and fulfilling His purpose in a vast and intricate system which we call THE WORLD—or worlds,—of time and space, of matter and force, of body and mind and spirit. With the Apostle, it holds that “He is before all things, and by Him all things consist,”—“upholding all things by the word of His power;” while with the scientist, it recognizes that all this is done by an established and orderly sequence of secondary causes, working on and working out, through age after age, a mighty and harmonious progress. It believes with all its heart in the Reign of Law; but it stands with Newton when he calls the laws of nature “the established modes of the Divine working,” and with Locke when he says, “Of law there can be no less said than that her seat is the bosom of God, her voice the harmony of the world.” It recognizes Nature and Revelation, as the two co-ordinate elements in our acquirement of truth, as to the universe and ourselves,—the one tracing the history of the cosmos, and the processes that have brought it to its existing form; and the other taking up the unfinished scheme, and carrying it forward, in close analogy though in vast expansion, from the past and the present into future ages, from the realm of the material and the organic to that of the moral and spiritual, from the seen to the unseen, from the temporal to the eternal.

Such is Christian Evolutionism, as I desire to present it; and this I shall do in three aspects,—its basis, its scope, and its results, or its influence on religious thought.

Of course, in any scheme of science or philosophy that fails or refuses to recognize God, the Christian can have no share and no sympathy. But this is no part of Evolution, save as certain of

its advocates have chosen so to claim. Such claims, however, and the assumptions and definitions based thereon, give no prescriptive right to the term which they have thus sought to appropriate. There is a theistic as well as an atheistic evolution, and, as I hope to show in this paper, a Christian evolution as well.

The great vital difference between these two schemes lies not in the ideas which they hold as to the growth and shaping of the universe, but in the fundamental principles upon which they base those ideas. Both recognize successive grades and stages of being,—physical, organic, intellectual, moral,—following one another in a time-order and a logical order. Both admit that the lower leads up to the higher, by various processes, as yet but little understood. But the one holds that the lower possesses a self-developing power, by which the higher is wrought out independently and of necessity; that the lower involves in itself the “promise and potency” of the higher; that all the scheme of order and progress and interdependence is the result of an unconscious play of forces. The other holds that above, beyond, and before all possibility of order and progress, is a supreme conscious Intelligence, of which everything in the universe exists as a product embraced in an original plan; and that all laws and forces are but expressions of this great primal force, which works along lines of orderly and systematic development.

The difference between the two is fundamental and irreconcilable. The one is theistic, the other atheistic, to the core. Between them there is no half-way ground, no compromise, no truce. The universe is either created or uncreated, either dependent or independent, either self-developing or developed by something beyond itself.

Between these two schools of thought, I do not propose to argue here. I am addressing the Institute of Christian Philosophy, not an audience of unbelievers in God. I will only pause to point out one or two principles, which go to the heart of the main issue, and which form

I.—THE BASIS OF CHRISTIAN EVOLUTIONISM.

It is a recognized canon of science, that an unknown force, or law, or principle, must never be invoked when one that is

known will explain the facts. This is a fundamental rule, a necessary safeguard against all sorts of wild speculation, as opposed to any scheme of consistent and well-grounded observation and reasoning. Every department of science will furnish abundant illustration of this point. Now, all that we actually *know*, of cause, of law, of order, we gain primarily from consciousness, from our own experience of intelligence, purpose, endeavor, accomplishment. There is in ourselves a power largely above matter, able to modify in many ways the world about us, to plan such modifications and to put those plans into exercise, often through long periods and by a complicated chain of secondary processes. Of force outside of ourselves we really *know* nothing. We reason to its existence, however, with convincing power; we believe it by arguing *a posteriori* and by analogy,—transferring to objects without ourselves the conception of powers and processes similar to those of which we are the conscious possessors.

But here comes in the scientific canon above referred to, which forbids us to assume the unknown or the unproven where things known and proven will suffice. The only force that we know is mental, conscious, and personal: all other forces are assumed upon analogy, by likeness of processes and results. The believer in a personal Intelligence, therefore, as the ultimate author of all phenomena, stands on the ground of strict scientific analogy, reasoning from the less to the greater; while he who assumes a self-determining unconscious power in nature is off that ground, and in the region of mere fancy, with no philosophical basis for his claim. In such a case, there rests upon him what logicians term the “burden of proof,” while the theist has all the advantage of the scientific position.

But here at once is raised the cry of “anthropomorphism,” and the unbeliever makes himself and his readers merry at the supposed absurdity of imagining that the Author of the universe is like ourselves. To this I reply that,—call it anthropomorphism or what you please,—it is the strict application of the method of induction, so fully relied upon in every other department of scientific study. A certain body of observed effects being due to a certain kind of known cause, a similar body of effects is attrib-

uted to a similar cause. If the effects be greater, the cause is assumed to be greater in proportion ; but the question of amount, or of time, does not affect the principle of reasoning, which lies at the foundation of all modern science, and is vaunted by many as the only reliable source of knowledge.

The geologist, for instance, reasons in no other way as to the past history and condition of the globe. Because rains and frosts at the present day make a small but constant wear on sandbanks and hillsides, we attribute the whole shaping and wearing of the earth's surface, its valleys, and canons, its rounded heights and excavated gorges, to a similar action of atmospheric water through ages past. No one mocks at this as "atmospherism," or proposes a self-excavating power in valleys and ravines,—none at least save the utterly unlearned. So, too, any object that bears the character of human handiwork is accepted as proof of the presence of human beings, no matter how remote in time, or in locality, from the abodes of the present race ; and every fossil fragment or impression is recognized as the vestige of a living being, however obscure or problematical its characters may be. The man who should revive the old notion of fossils, as *lusus naturæ*, or suggest that flint arrow-heads were produced by a spontaneous process of cleavage, would be hooted out of any scientific assembly on the globe. But when the same reasoning is applied, not to separate particulars, but to the entire universe, there arises at once a host of objectors, who cry "Anthropomorphism!" and propose for the whole great scheme a theory of self-development which they would scoff at for any of its smaller parts. If hard pressed, they take refuge in agnosticism,—a course equally inconsistent with all their confident assertion in special departments of study,—and pose as high philosophers, who talk about "the impiety of the pious."

The man who lays claim to a great mechanical invention, is justly expected to illustrate his process by a working model. If he fails to do this, if he cannot produce on a small scale something of the results that he asserts to be so important, he is at once set down as either a pretender or a visionary. What, then, shall be said of the scientific philosopher who would stake his life on the human origin of any fragment of an implement, an in-

scription, or a building, and will yet deny an intelligent source to the far more elaborate and convincing structure of the universe? The marks of intelligence and plan are clear and certain to him in the less, but are disputed and evaded in the greater! Such a course is neither consistent, nor scientific, nor candid.

My second point is in answer to an objection—the only one that seems possible—against the view here urged, viz., that we know human activity and human causality by our senses, we see the processes daily, but we do not see Divine activity and causality. The reply is a total denial of the distinction thus set up. Activity and causality, whether human or superhuman, are recognized solely by the mind and not by the senses. They are known to us primarily, as above stated, from consciousness, as existing in ourselves; otherwise, beyond ourselves, we know them only by reasoning, from like effects to like causes. The senses give us the phenomena, in both cases, and the phenomena only, in mere disconnected succession. The rider sees what his horse sees, and no more. Whatever unites the separate links into a chain of causes and effects, whatever brings in the elements of intelligence and purpose, is supplied by the mind through analogy and experience. If we watch an artisan at his work, all that we *see* is a certain series of motions on the part of a being resembling ourselves. This, and no more, is given by perception. That there is any plan or purpose uniting those successive actions,—that the being which we see has thought and intelligence like our own,—these are ideas wholly added from the mind, above and beyond the senses. If the man be absent, but his tools and his work are seen, we reason in the same way to his former presence and agency. If the work be done by means of a complex system of machinery, which seems to go on of its own accord, with no human action visible at the time, we are no less clear and positive in regard to an intelligence, real though unseen, as the source of all. In every one of these cases, so common and so simple, the process is the same: the separate data alone are given by the senses; the whole idea of any connection, any law, any plan, any intelligence, comes from our own mental analogy. Precisely so is it in the universe; and the objection based on a supposed difference, arises merely from a failure

to recognize the fundamental fact that, in both cases alike, the senses give us merely disconnected phenomena, and that the only nexus is that furnished by the mind.

These two points cannot be too strongly insisted upon:—(1) that all our ideas of cause, force, law, progress, come from our inward consciousness: and (2) that of unintelligent and unconscious forces, we have no knowledge and no proof. Any one, therefore, who claims that such forces exist, is off the ground of scientific analogy and reasoning, and must carry the burden of proof for his theory.

Having sought thus to point out the theistic basis on which science must ultimately rest, I turn briefly to the question between Evolution and Special Creation.

The illustration has already been adduced, of a complicated system of machinery, acting with such regularity and precision as almost to seem self-directing; and I have urged that the unseen human intelligence that planned its construction and that guides its entire working, is clearly recognized by every beholder. This example has been employed against the agnostic and the materialist. I propose now to turn it against the opponent of evolution. Will any man in his senses attempt to say that the products of that machinery are not the work of its constructor, because he has not actually shaped them with his hands? Is it not the characteristic, and the boast, of our modern civilization, that through machinery we are substituting mind-work for hand-work; and that this is a far higher stage and form of human activity,—a triumph of mind over matter? The point seems too plain to need argument. We say that St. Paul's Cathedral was built by Sir Christopher Wren. Does any one, save a child or a simpleton, imagine from this statement, that Sir Christopher Wren cut and carried all the stones, and laid the mortar, and performed with his own hands the thousand tasks of that mighty work? The triumphs of modern machinery are marvelous; and yet we can conceive of their vast extension. In a great manufactory, with its countless details of self-adjustment, or one of our wonderful ocean steamers, that speeds like a living creature across the deep, there are yet many occasions for the direct intervention of human agency, to modify the processes of production, or to

meet the emergencies of sea and storm. But we can imagine even far greater advances in self-adjusting and self-modifying features. Invention and adaptation have gone so far, that we may well conceive of their going farther still. I am not speaking of what may be actually realized, but merely illustrating for the sake of argument. By various discoveries and improvements in the applications of electricity, photography, etc., it is conceivable that a factory might be made to change its products according to the market, the season, or the fashion; or that steamers might have complex and delicate systems of signals, that should so act on the engines and modify their movements, that vessels should steer clear of one another in the darkest night or the densest fog, or bear away in safety from the unseen shore. We can imagine such adjustments carried so far, that the ship might be started on her voyage, and cross the ocean or sail round the globe, without a human being on board. Such a vessel might seem like a mere automaton, or be fancied by savages to be herself a living creature. Yet how far would such ideas be from the truth! In and before and above all conceivable adjustments, would be ever the master mind of the constructor; and the vessel would be simply the marvelous concrete expression of a plan and a purpose that could design and foresee and adapt for a thousand emergencies yet to arise. Now, which would give the grander conception of human capacity and achievement,—such a vessel as I have thus imagined, or an old-fashioned sailing-ship, in which every rope must be pulled, and every sail hoisted, and every emergency met, by the visible labor of human hands on every separate occasion? No one will hesitate to answer. But when the same ideas are applied to the universe, how is it that they are met with objection? When the world of matter and life is regarded as a great connected system, bound together in orderly progress by a mighty interplay of laws and forces, through successive ages and stages of time and being,—this view is deemed inconsistent with the recognition of its Divine origin and oversight. How strangely do the unbeliever and the religionist co-operate in these subjects, by a like inconsistency with ordinary reasoning and experience! The one abandons his methods of scientific induction, and assumes unknown and unproved forces in matter, whereby results can ex-

ceed their causes, and the blind and unconscious concurrence of atoms can produce the phenomena of intelligence and law. The other abandons the familiar ground of observation and common-sense, and assumes that indirect and secondary agency is no agency at all. It is hard to account for the strange one-sidedness of both parties in reference to these themes, proceeding, as they do here, in ways which they would never think of using in the minor facts of science or the daily affairs of life. In all ordinary matters, men recognize freely the co-operation of primary and secondary causes; but here, one school will not admit the First Cause, and the other will not admit the secondary causes! How plain it is, that nine-tenths of the whole difficulty of the subject arises from this partial and inconsistent treatment, and that by a proper adjustment of the two elements involved, a ground of union is attained, at once philosophical and simple.

I hold, then, to Christian Evolutionism, as the satisfactory, and indeed the only view; and having sought thus to clear the ground, and show whereon I stand, I go on to sum up in a few paragraphs the second main head of this paper, *viz.*—

II.—THE SCOPE OF CHRISTIAN EVOLUTIONISM.

Those who have followed me thus far will see, I trust, that the foundation is very broad. It gives room for the fullest evolutionary views, without affecting the religious aspect of the case. Once we are clear as to the Divine origin and oversight of all the universe, it is no longer of any moral importance whether this or that portion of it is wrought out by methods more or less direct or indirect. It is God who “worketh all in all,” whether that working be mediate or immediate, whether by processes usual or unusual to our limited experience, whether in a moment or through ages of time. The question is now wholly one of science, and its interest purely intellectual, and not moral or spiritual. It is simply the inquiry as to *how* God has wrought out the results that we experience,—how He has fulfilled “the counsel of His own will.”

To present the scope of Christian evolutionism, would require a series of lectures, covering the broad outlines of almost all the sciences,—physical, natural, social, and moral. Of course, this

cannot be attempted here. All that is possible, or essential, is to outline the field, leaving for other occasions all matters of argument or proof.

All scientists, with scarce an exception, are now agreed in the belief that the material universe began as a primal "star-dust" or "fire-mist," *i. e.* as a diffused mass of ultimate particles, perhaps identical with the uncombined atoms of chemistry, or more probably in a yet simpler homogeneous form, from which the chemical atoms were originally derived by union in varying proportions. That by the operation from the outset of the present laws of attraction, producing motion, and of motion producing heat, light, and chemical affinity, and so on through the endless interplay of the correlated forces, the universally distributed and homogeneous matter gathered into mighty aggregations, separated by regions of comparatively empty space, and destined through the gradual process of condensation and loss of heat by diffusion into the interspaces, to pass through all the successive stages of nebulæ, nebulous stars, suns with planetary rings and satellites, cooling planets, and finally worlds like our own moon, in which all the heat has been lost, and the liquid and gaseous elements cooled into a lifeless and frozen solidity. During the history of any one of these bodies, of which our own globe may be taken as a small, but by far the best-known, example, there would be, in the passage from a liquid to a solid condition, long ages in which the heated interior would be enveloped by a solid shell or crust, of gradually increasing thickness. Here we reach the familiar ground of geology, which has for its field the history, structure, and modifications of this outer envelope. During this crust period of its existence, there will be a certain portion of time when the mean external temperature will lie between the freezing and the boiling points of water,—in other words, when water can exist in the liquid state. This condition includes and determines the period in which animal and vegetable life can exist on the globe, or the time-limits of organic being, as we know it. Here again we are on familiar geological, or rather palæontological, ground, where there is a general consensus among all scientists, and an overflowing storehouse of facts. We find life appearing in the early rocks in simple and lowly forms,

and advancing constantly in rank, complexity, and variety, as the ages pass on. Each new period witnesses the advent of new and higher forms, and the disappearance of old and lower ones. In the study of the past and present life of the globe, there is found such a remarkable progress and relationship, that the conviction is irresistible,—to most scientific minds,—that the process has been one of modified descent, and that the system of life is a connected whole.

Observe the strict analogy with the history and laws of the purely physical universe, that is thus recognized in the higher organic world ;—development, evolution, from the lower and simpler to the higher and more complex ; yet not a blind fortuitous succession of changes, but a *system*,—with a plan, a purpose, an end, ever foreshadowed and foreseen.

Lastly, as the crown of its organic progress, man appears upon the globe,—a being presenting a singular union of widely separated attributes. On the one hand, he is linked to his predecessors by a unity of structure that compels the belief of a kindred physical origin. On the other, he is possessed of additional faculties which raise him to a plane of existence far above any other organic forms. Here again, the Christian evolutionist stands between two opposing schools of thought, and holds the only view that can harmonize them,—though regarded by both as a sort of intellectual outcast. He recognizes in man a twofold character, a physical unity with the organic world, and a moral and spiritual nature which lifts him into another sphere of being. Man stands as the culmination of the process of organic development,—toward which and for which all that process has gone on through the ages of geologic time,—and also as the first representative of a higher order of life, kindred with the very Author of the universe Himself. In the development of human society and human history, we again trace the same workings of law and progress as before in the physical and the organic world, though modified into yet greater complexity by the new element of free and self-determining wills. But in all the course of humanity upon the globe, we can recognize the Divine purpose, guiding and governing the whole, and weaving into a great connected scheme the countless secondary agencies of man and of nature.

But is this the end? Science and philosophy have reached their limit, and have no more to tell us. Are we then to suppose that the Evolution of the universe has attained its highest point? For answer, I appeal to two independent sources,—analogies and revelation.

Analogy would lead us to the suggestion that there may be as much above us as below us, as much before us as behind. That there should be classes and orders of intelligent beings as far beyond us in their intellectual and moral powers, as we are beyond the animals, would be a perfectly legitimate inference from the facts already known. That there may lie before ourselves in the future, as great advances as we have already made from the organic germ, would be only in the line of analogy. The objection that we have no sight or experience of anything of this kind, has no place here; since no animal in its larval state can have any experience of its coming stage of advancement. If now we turn to Revelation, this is precisely what we find,—a world of beings higher than ourselves, unrecognized by our limited senses, yet around and above us evermore,—“angels and archangels, thrones and dominions, principalities and powers in heavenly places,”—speeding through the universe, executing the Divine government, ministering to men in this life, serving and rejoicing forever. For ourselves, it tells us that such a life is before us, in the coming periods of our development; and that all the present and past of our being are but stages of growth and preparation.

Here I think we approach a point,—like one who emerges from the forests of a mountain-side, and sees opening before him a marvelous prospect of beauty and grandeur, flooded with sunlight and stretching away into unknown vistas of ever-widening vision—where we begin to gain some conception of the glory of the universe, with its Divine plan and order, its systems of time-worlds and space-worlds, its endless reaches of power, wisdom, and love. “All things are of God,”—one grand, united cosmos, physical, organic, intellectual, spiritual,—planned by Him, upheld by Him, administered by Him evermore, through ten thousand forms of law and force and development. “Verily He is a God that hideth Himself” amid these seemingly blind processes of nature and time; yet to the unbiased vision of the soul, “of

Him, and through Him, and to Him are all things, to whom be glory unto the ages of ages. Amen!"

Such, as I conceive it, is the scope of Christian Evolutionism. To my own mind, it has a grandeur and a beauty that I cannot express in words. All that science has to tell me of the spaces of the universe and the ages of its development; all that revelation has to tell of the Divine power and purpose and glory; all that history reveals of the progress of humanity, and "the infinite not-ourselves that makes for righteousness;" all that the Scripture says of the wise and holy administration of the world; all that natural analogy would suggest as to spiritual beings and future life; and all that is promised in the Word of God as to the Kingdom of Heaven and the world on high, meet and fall together in one vast and comprehensive scheme, the "eternal purpose of God."

This most imperfect outline of the scope of Christian Evolutionism will be seen to pass naturally and at once into the third and principal head of my subject :

III.—ITS INFLUENCE ON RELIGIOUS THOUGHT.

Walk with me through the halls of a geological museum, and study the successive stages in the evolution of life, as given us in the great rock-written volume of the world's history,—nay, may I not say, the newly-revealed "tables of stone," graven by the hand of God? What is the meaning of it all? What value, in fine, has it for me or my fellow-men? It is curious, interesting, wonderful;—but is it no more? Has it no message for the soul? I hold that it has,—a great and glorious message. It says to me, "Behold here the designs and ways of God;—the long preparation, the ever-unfolding plan, the ever-continuing purpose, leading up to man in his present stage of advancement. See the way by which organic development has come thus far;—and now, turn and look forward. From the past, judge the future; and with scientific analogy on one side and the revealed word on the other, conceive of the higher developments, the loftier powers, the nobler forms of organism and environment, in the coming stages of the Evolution of the Divine plan." Such is its message. All that long strange succession of past forms of life becomes luminous

with such a thought, and turns from an obscure and problematical record to a prophecy of joy and glory. All the longings and strivings and hopes that we feel within, are recognized as the stirrings of yet undeveloped powers in a larval stage of being; and we begin to understand more clearly what is meant by the Scripture hints as to the groaning creation "waiting for the manifestation of the sons of God." We now look forward to the experience of death, as simply the form in which we are to pass into the next and higher stage of our development, and enter upon a new environment.

But here I must pause and consider another aspect. All that has been said thus far of Evolution has been theistic, but not distinctively Christian. No note has been taken of certain features, of the gravest practical import. Of course, I refer to the question of moral evil, and the darker aspects that come with that awful fact.

The idea just presented, of the process of Evolution reaching on from the past into the future, and leading us to a pre-
vision of glorious advances in the ages to come, is grand and beautiful in the highest degree. But it has most important modifications, to which I must now allude, as the closing portion of this paper: and here again I turn for analogy to the past history of organic life.

Accepting the view that all living beings have been derived by modification, rapid or gradual, from preceding forms, we may observe repeatedly in geological history some points of remarkable significance. While the general course has been steadily upward, toward higher forms, it has not been so always in separate groups. On the contrary, with each new advance, the older groups have fallen off, retrograded, and in many cases finally disappeared. The early members of any group had certain features, which we call anticipatory or prophetic, allying them with higher types yet to appear on the globe. Thus the early fishes of the Devonian Age had important structural features which allied them to the reptiles yet to come. So, too, in the Reptilian Age, the great reptiles had many points of relationship with the birds and mammalia of the next period. When the next higher type came in, it presented fully and clearly

those features which had been rudimentary and imperfect in the older preceding type; and the line of further evolution was taken up by the new group and carried on again in the same way toward yet higher forms. But with every such advance, there is also the other aspect,—the falling off of the older type and its cessation from any further part in the line of advance. Its function in that respect seems to have ended, when once the higher features which it partially possessed had found their fuller development as the characteristic features of the next group. Thenceforth, the older type sinks into a gradual descent or a barren fixity. It persists more or less, but only as a relic of a past condition, a remnant of a by-gone stage of imperfect development.

Every group of organic beings seems thus to have two very distinct sets of features or tendencies,—one that links it by heredity with lower forms that preceded it, the other allying it, by some law of anticipation not yet understood, with higher forms yet to appear. According as the one or the other of these tendencies shall prevail, will the development of that particular type be downward or upward, retrogressive or progressive, in the course of time. There are many facts in the life-history of organic forms now existing that show a similar law; and the terms "arrested" and "accelerated" development have become familiar in science, as expressing phenomena of this kind. Certain possibilities in an individual animal may be stimulated, or retarded, or atrophied, by the influence of environment, natural or artificial. In other cases, such results seem to take place apart from the environment, by some inward tendency, upward or downward, of the organism itself. But in any case, the law is clearly traceable, both for individuals and for groups, on the small scale and the great; and if once the lower or hereditary tendencies prove too strong for the higher affinities, the possibility of advance seems lost, the progressive features are gradually atrophied, and the organism or the group will fall out of the line of advance and sink into a persistent or retrogressive existence, unrelated to the higher conditions of a future environment. On the other hand, if the higher tendencies prevail, the individual or the group goes on and becomes adapted to new con-

ditions of environment, and possessed of higher and more varied faculties for activity and enjoyment; while the lower elements, in turn, become reduced or atrophied with the progress of a higher development.

Is there not here a great analogy? Project this same principle into the world of humanity, where the physical and the moral elements are so closely interwoven; and we shall find again the unity of law, and the clue to some of the darkest problems with which we have to deal.

Regarding man as the latest term in the zoological series, he has behind him the long heredity of ages of lower ancestry. Beyond this, however, he is a being of a new order,—the first that possesses the Divine likeness of free moral agency, and is capable of knowing God and living for Him and for the unseen future world. In scientific language, man is the first being that is able to understand anything of his own evolution, past and to come, and to shape it in any degree by the exercise of his own powers. As in other organic beings, so in man are the two opposing tendencies,—the hereditary kinship with the animal world, and the “promise and potency” of a nobler existence in a spiritual environment before him. But unlike all his predecessors, man is able to recognize and influence these tendencies,—his own conscious and voluntary action becoming a main factor in the process of his development. For such a being as this to make the lower choice, to develop the affinities that ally him to the animal past,—is clearly more than a misfortune. It is the betrayal of his grandest trust, the atrophy of his noblest powers, the failure of his highest destiny. In the coming stages of his being, if the law of the past shall hold true for the future, he would be out of relation with his higher environment and could only exist as a degraded type of arrested development.

So far, I have followed scientific analogy. If now we turn to the Scriptures, this is precisely what we find there, as the greatest and most important fact in anthropology, viz.: that our present condition is not only a larval stage of partial development, but a period of great peril and responsibility, arising from the fact that the moral and spiritual powers, as yet only at the outset of their evolution, are liable to be overborne by lower hereditary ten-

dencies; and that in a being having such moral and spiritual powers, his own free acts and choices must determine his development. All that the Scripture tells us of sin and its consequences, "of righteousness, temperance, and judgment to come," of the glorious prospect for earnest and faithful souls, and the dark and hopeless forecast for those of opposite character,—here falls into union with the evolutionary views derived from science, when projected into a future and spiritual world.

But the Scripture goes farther, and tells us that not only is this great liability a peril of our present condition, but that it is a fact of our condition,—the most important of all facts. It asserts that the lower elements in man have already, and from the start, overpowered the higher, and gained an ascendancy fatal to the prospects of the individual and of the race. What else does the doctrine mean, that all men are "fallen," sinful, and hence exposed to ultimate ruin? This doctrine is much disputed and much ridiculed, but if regarded impartially, in the light of human history, personal experience, and scientific analogy, it stands on the firmest basis. But for this, it is needful to consider briefly wherein consists the nature of evil among men.

In the aspects above presented, we shall discern its nature very clearly, as the voluntary choice of lower rather than higher ends, the exercise of lower rather than higher faculties, the assimilation of the complex being to the conditions of past and present environment, rather than of the higher environment to come. Such a course involves atrophy of the spiritual faculties, arrest of moral development, and lack of adaptation to the conditions of future advance. It is, therefore, utterly and hopelessly ruinous, in its process and its results. What is this statement but a scientific formulating of old and familiar expressions of the Scripture, as to the bondage of souls to the present world and the deadly and downward course of sin?

Here I pause to note the fact that the nature of such a course lies not in gross outward forms of vice, though these are its most marked manifestations, but in a temper and disposition of the inward spirit, which may exist in full force under the garb of strict morality and blameless life. The question is not one of external signs, but of profound internal tendency. What is a man living

for;—what does he love most;—what is he aiming at as the object of his life?—these are the crucial tests. Is it this world or the next? Is it present or future development? Is it wealth, fame, power, pleasure; or the advancement of character, his own and others', in moral and spiritual development? Here we begin to see the reason of the strong Scripture presentations of the opposition between God and “the world,” between the earthly mind and the spiritual mind, between living for present ends alone, however good in themselves, and living for the unseen and eternal things, in which lie all the elements of our advance. Much that seems dark and difficult and hard in the teachings of Revelation, becomes in this view far more clear and simple. We see how it is that “he that loveth,—seeketh,—findeth—his life, shall lose it; and he that will lose his life in this world shall keep it unto life eternal;” and we begin to gain glimpses of the tremendous scope of the Lord’s inquiry,—“What is a man profited if he shall gain the whole world, and lose—*himself?*”

I pass briefly over the Scripture account of the beginning of evil among men, with its reference there, and all through, to the agency of other and superhuman powers, and only speak of the scientific and evolutionary aspect of this great problem. Here again, I believe, the Christian evolutionist has a clue which greatly simplifies the difficulties.

Suppose that in the course of development, the time had come when the new element of spiritual consciousness arose, or was implanted, in the breast of a living organism. Henceforth, a new principle of action is to rule the life of its possessor,—even the recognition of God, of a future spiritual world, of his own destiny and responsibility. All the lower hereditary tendencies and impulses are to be restrained, guided, governed, used, by and for this highest element of being. If this be done, the progress of development is assured; the lower faculties will serve their temporary functions, while the higher ones grow and prepare for the next stage of existence. But this process, like all others in nature, will be one of gradual advance, beginning in simple and lowly forms of moral and spiritual training, and going on to higher ones with the development already gained. Now if the process fails and goes wrong, at any point, the balance of faculties is disar-

ranged, and the being is started on a wrong course, in which, by virtue of his very higher energies, he descends with accelerated speed. The higher elements have lost control of the lower; and heredity can only transmit to successive generations a weakened and disordered constitution, liable to certain failure.

Now what does the Scripture state? It gives us man, introduced as such by the possession of the Divine image. It presents him in a state of primal innocence and ignorance of evil. It tells of a Divine command laid upon him, of the simplest and most concrete kind,—to restrain in one particular his natural physical appetite, for the sake of a future and invisible result. What is this but the first step in the moral training for higher stages of existence? It goes on to tell how the test failed, how the development went wrong, how the man and the race fell at the outset of the progress. Is there anything here unnatural or improbable, anything out of relation with familiar facts and principles?—though the record is often made a mark for ridicule and contempt. But only in the intervention of superhuman powers, as I said before, does it depart from the most natural aspect of occurrences; and this, be it noted, transfers the starting-point of the failure from a physical to a moral basis,—from a mere animal desire to a doubt as to the reality of the unseen future and the truth of the Divine word. But, however started, the failure and its results are the same,—a moral weakness, a spiritual incapacity and blindness, an over-mastering power of the visible and present over the invisible and eternal, a loss of harmony with God and the world to come. Such is the idea of the “lost and fallen state of man,” as familiar in theology, and as explained by the evolutionary theory of his origin.

How largely, how sadly, and how generally, this view of human character is borne out by experience and history, I cannot here discuss. The thousand crimes and cruelties of the ruder forms of society; the vices and corruptions of more polished, but no less immoral, civilizations; the Protean forms of social and individual iniquity that are at once the problem and the disgrace of the most enlightened and advanced communities;—these, with all the tragical experiences of sorrow and unrest, of disappointment and despair, that enter into the story of human lives, and

that fill literature and poetry with their conscious or unconscious utterance ;—all confirm with tremendous force the Scripture doctrine of man as a fallen being,—one that has lost his way, and missed his destiny, and sunk below his real capacity and aim.

It is a dark and fearful aspect ;—so dark and fearful that I do not wonder that many refuse to admit it all, and would fain seek, with outward forms of social culture and material progress, to veil the dread reality, and palliate the disease that lies deep at the heart of humanity ; or that others, who do recognize it in some degree, have sunk into the despair of misanthropy and pessimism.

But the question is not whether the view be dark or bright, painful or agreeable, but whether or not it be true. I have sought to show that the Scripture doctrine and the evolution doctrine agree in this great subject, the latter explaining and illustrating what the former asserts as a fact. I know that here I shall be met with all the familiar dogmas about progress, education, science, literature, art, etc., as opposing evidence in the case, and as the saving elements in human society. To this I reply by turning once more to the analogies of science, where we shall again find some very remarkable and suggestive facts.

A fixed or retrograding type is capable of great expansion in many ways, while incapable of real advance and destined to further decay. Geological history is full of examples of this principle. Again and again do we find a group of living beings blossoming out, so to speak, into a wonderful variety and fullness of development ; but this is far different from a progress toward higher forms. On the contrary, it is for the group the frequent precursor and prophecy of decay. It would seem as though the very vitality of the type exhausted itself in expanding into great variation and great complexity and great ornamentation. It would indicate that the type has reached its limit of advance, and there stopped, become fixed, and attained such a perfect assimilation with its present environment that it spreads, differentiates, and becomes specialized in the highest possible degree. Progress has ended ; the type and its environment are in perfect adjustment ; and under those circumstances, the type becomes the one characteristic of the period, but not the one that embodies the features prophetic of higher evolution. In the next period,

—with any marked change of conditions,—these specialized and elaborated forms disappear, or sink lower in the scale. They are now of a past type and a past period; the line of advance has developed further, from simpler and more enduring forms, and left them behind in an arrested stage of evolution.

I regret that there is not time here to cite some facts from geological history, gathered to illustrate this important point. In modern biology, too, there are interesting and striking examples of the operation of a similar law; and as the doctrine of evolution has extended its domain over much of historical and social development, here, too, could be seen the operation of a kindred principle. But these illustrations must needs be omitted, although they would add much to the force of the argument, were there space to include them.

With regard to all the theories of human perfectibility and advancement by means of art, science, culture, etc., the radical fault is that they fail to touch the heart of the difficulty, because they do not belong to the requisite department of being. They are intellectual and social purely, and do not of themselves enter into the higher spiritual sphere of our nature, the part that has its portion and its development in the coming stages of our evolution. They correspond to the specialized and varied forms assumed by a type of life that has become stationary, and that, instead of growing toward a higher development, is merely expanding and illustrating itself to the full measure of its capacity, ere its perfectly adapted environment shall pass away, and leave it in a fixed and bygone stage, lingering amid new conditions in which it can have no participation.

What then is to become of the human race? If it has thus fallen out of the line of advance, lost its connection with the spiritual world and the spiritual life, become bound up in its present environment, and proportionately unfitted for its next stage of existence, the prospect is dark indeed.

But is this all? I have sought to show how the doctrine of Evolution brings us to the same position with the Scriptures, when they tell us of sin and peril and ruin and helplessness. Thus far, I have followed scientific analogies, step by step, with the facts of our moral experience and the prospects of our spiritual

future. But science can go no further. Evolution has no word of hope or cheer. Law is rigorous and impartial. There is no indication in geological history, of the recovery of a type that has once been checked, and lost its position in the line of advancing development. Lower tendencies, once predominant over higher, go on and on into fixity and degradation of the type. If analogy is to hold for the future of mankind, science has no promise for us, and only stands, like the fabled Sphinx, propounding to man the unsolvable riddle of the universe, to be answered under penalty of death.

Here we have come to a point where Revelation alone may speak; and Revelation, hitherto so strikingly attested by the concurrent voice of science, now breaks the awful silence with the message of deliverance.

“Salvation! oh, the joyful sound!”

We are now on strictly Christian ground,—the familiar ground of redemption by the love of God;—that “when there was no eye to pity and no arm to save, His eye beheld, and His arm brought salvation,” and that “God so loved the world that He gave His only-begotten Son, that whosoever believeth in Him should not perish, but have everlasting life.”

On this blessed and glorious theme, I may not here enlarge as I would, but can only, in closing this lengthy paper, point out a few aspects of the Scripture doctrine of salvation, as held by the Christian evolutionist.

The central idea of the Gospel is a Divine intervention for the recovery of men from a state of sin and ruin. Scientific facts and analogies have thrown interesting light on both the nature and the origin of this condition. If its nature be the arrest of moral and spiritual development, and the subjection of the higher and future elements, in a free moral being, to the lower and reversionary tendencies of his organic past,—we understand better than before not only the essential character of sin, and its utterly fatal and ruinous result, but the manner of its origin, and the fact that it may and does coexist with large capacities and rich attainments in the realm of culture, refinement, and intellect. But these belong chiefly to the present environment, and have

for the next and higher stage, of spiritual development, no "promise and potency of life." As a man may be a model of physical perfection, may unite the grace of Apollo with the strength of Hercules, while yet an intellectual dunce, with no capacity for interest or enjoyment in the higher domain of science, art, or philosophy,—so a man may be a giant in intellect or a standard of taste, and yet have no capacity for interest or enjoyment in the yet higher world of spiritual experience. The spiritual life in such a man is dormant,—or dead: and in the coming stages of his development, when his present environment has passed away, with all the conditions to which he was adapted and in which he had "found his life," what prospect has he in the world to come, for which he has no preparation?

Here we see the force of the constant language of Scripture as to spiritual *life* and *death*, and their relation to the fall of our first human ancestor, and to the redeeming work of the Son of God. "Original sin," the source of so much dispute, is recognized as the downward tendency, sure to develop in every man, derived by heredity from the first failure of the spiritual powers, and their consequent subjection to the lower elements of our being. Actual sin is the free and voluntary repetition of the same process in each member of the race, and tends evermore to confirm the original liability, and to fix it into the very law of our existence. Such a being is therefore *dead*,—dead to his higher possibilities and destiny; and it is no mere figure of speech when the Scripture says that "the wage of sin is death," and that men are "dead in trespasses and sins."

So, too, if there is to be any recovery, it must be by a power from without, effecting a great and radical change. Such a change, as wrought by the power of God, is called a "new birth," *i.e.*, the introduction into a new state of being; it is spoken of as a "passing from death unto life," in its renewal of the lost intercourse with God and the lost possibilities of an advancing development. As this can be only through the love and might of the revealed Saviour, we see how it is that the Scripture speaks so emphatically of *life* as connected with Him alone. "I am come that they might have life;"—"this is life eternal, that they might know Thee, the only true God, and Jesus Christ

whom Thou hast sent ; " " he that hath the Son hath life, and he that hath not the Son of God hath not life," etc., etc.

Of the glory and promise of this restored life to come, scientific analogy, as before remarked, gives many suggestive hints which confirm the Scripture presentations. A condition of vastly expanded powers, of freedom from the limitations and burdens which hamper us in the present stage, of capacities for enjoyment beyond the grasp of our now imperfectly developed faculties,—these would find their natural accompaniment in a new environment of beauty and sublimity, adapted to a further evolved humanity. Thus we see the strict *naturalness* of all the Scripture intimations of a heavenly world of light and glory, of tireless activity joined with eternal rest, of a "kingdom prepared from the foundation of the world" for the abode of redeemed spirits in the presence and communion of God.

Once more, if there is such a process of restoration and recovery from a fallen state of arrested development, that process will of necessity be not only gradual, like the usual methods of God's administration, but will have a character of difficulty and toil, of irregularity and fluctuation, unlike the normal processes of growth and development, and similar to those of convalescence from disease. Two opposing elements are striving for the mastery,—the one strong in its human and animal heredity, the other mighty with "the power of an endless life." Of this conflict, I need not speak, to many who read these pages ; as both in revelation and in experience, it is a characteristic and constant feature in the life of renewed men. The Scripture language as to "the mind of the flesh" and "the mind of the spirit," the "old man" and the "new man," is none too strong. To multitudes in every age and land, these are matters of daily and hourly familiarity.

Again, we perceive in the light of these views, the meaning of Revelation where it lays such stress on the peril attaching to what it terms "the world," as the mortal foe of God and our higher life. Not the natural world with its beauty, not the social world with its joys, not the intellectual and æsthetic world, with their pleasing exercise of our powers,—does the Scripture properly mean by this term ; but "the spirit of the world," the

satisfaction and absorption of the soul in its present environment, of whatever kind. "*Be not conformed to this world;*—"—how the familiar text glows with new meaning to the Christian evolutionist! "*Love not the world, neither the things that are in the world, * * * for the world passeth away,* and the fashion of it, but he that doeth the will of God abideth forever."

Here, moreover, we find the solution of the great problem of sorrow and pain. On the one hand, a being whose higher faculties are in bondage to the lower, and who is developing away from the real destiny and purpose of his being, can find no happiness and no peace, here or hereafter. The difficulty is inherent, and no power in the universe can alter the results. On the other hand, for those who are saved from this condition by Divine grace, a different relation appears. Their present life is not only a period of preparation, but one of corrective discipline, and that discipline determined by Divine wisdom and fatherly love, for the sake of their future happiness. Then, indeed, the darkness and bitterness are gone from the ills of life. Not despair but hope, not rebellion but humility, are now known to be the purpose, and found to be the result, of sorrows, trials, disappointments, and losses, in the present stage of our being. Thus they become bearable, as a necessary part of our training, and as tending to dislodge the soul from satisfaction and stagnation in its lower environment, and to urge it forward to higher lines of development. Such is ever the Scripture presentation:—"Arise ye and depart hence, for *this is not your rest;*—"—"If ye endure chastening, God dealeth with you as with sons."

Finally, we see the tremendous responsibility of self-destruction that rests upon him who refuses the offer of salvation through Jesus Christ. Heredity and environment are mighty; but the everlasting Founder and Planner of all is mightier than any of His secondary agencies; and His own power and truth are pledged to every one that will trust Him. It becomes, therefore, the most practical and personal of all questions, whether a man has or has not accepted this Divine offer and entered into this Divine plan. If he has, he is restored to the possibilities of his destiny, to the progress of his future develop-

ment, even into the presence and likeness of God. If not, he is already cut off from all these greatest ends of his existence.

For the soul that rejects this great salvation, or without distinct rejection, allows the days and years of life to pass without accepting it,—what prospect remains? Character becomes fixed in a defective and degraded type; the higher capacities have become abortive through disuse; the only development is that adapted to the present stage. It is by no arbitrary act or decree that such a being is excluded from future hope and joy and advance; but by an essential principle in all organic life,—adaptation of the organism to its environment. If a conscious free moral being has parted with the higher possibilities of his nature, it is by an inevitable result that he fails of success and happiness. God Himself,—to speak reverently,—cannot change this law, which inheres in the nature of moral beings.

For the soul, on the other hand, who accepts this salvation, the great loss is restored and the way once more open to a destiny of endless advance. There comes into his being, too, a new element of power and joy,—the experience of Divine love,—which awakens a responsive affection in the soul of the man himself. All his hope of spiritual development is due to the love of God in Christ; and it is to the open vision of Him that the man now looks forward as the crowning joy of his coming existence. “As many as received Him, to them gave He power to become the sons of God;”—“now are we the sons of God, and it doth not yet appear what we shall be; but we know that when He shall appear, we shall be like Him, for we shall see Him as He is.”

Such is Christian Evolutionism, as I have most imperfectly and scantily described it; and I leave it to the reader to say if I have not proved the claim made at the outset, that not only is such a system of thought possible, but that it forms a connected whole, possessing the highest interest and giving the grandest conceptions. We look back to the first creation of the nebulous cosmic dust; we watch the evolution of the starry heavens and the circling worlds; we trace on our own little planet the development of the new factor of life in its endless variety of forms;

we then see man, last in the organic and first in the spiritual evolution. We find then, that by the operation of a very natural process, the development at this point went wrong, and the whole grand scheme, after all its ages of preparation, was about to sink into failure and ultimate ruin. Then comes to view the glorious provision, made "from the foundation of the world," to meet the great emergency foreseen from the outset,—the atoning and restoring Deliverer, through whom all that was lost may be fully regained by every one who chooses to accept. For him who does not, the relentless sweep of natural law can only take its course.

And so it is that the evolutionist can be also the Christian;—can enter into the fellowship of all the earnest and faithful souls that have lived on earth, and passed into the higher stages of their development beyond;—can join in the faith of Abraham, in the trust and penitence of David, in the prophetic vision of Isaiah, in the zeal of Paul, in the love of John,—and in the great everlasting ascription of all restored and redeemed spirits, "Unto Him that loved us, and washed us from our sins in His own blood, and hath made us kings and priests unto God even His Father, be glory and majesty, dominion and power, unto the ages of ages. Amen!"

A SYMPOSIUM.

LAST March, the Rev. R. Abbey, D.D., of Mississippi, addressed L to the president of the Institute, a letter in which he suggested for discussion the question *whether persons of acknowledged scientific authority have specifically denied the Divine origination of matter, or of man, and placed such denial on logical grounds, and if so, when and where?*

In reply to that question several gentlemen favored the Institute with communications, which were read at the Institute's Summer School, August 17, 1887, and are here reproduced, in the hope that their publication may draw other contributions on the same subject, and suggest other pertinent questions for discussion in the Institute.

FROM R. ABBEY, D.D., READ BY MR. P. W. LYON.

[Dr. Abbey is a clergyman of the Methodist Episcopal Church, South, and the author of several able theological and philosophical books.]

I read CHRISTIAN THOUGHT with much more interest than any other periodical. Its articles are fresh, full of brains and always *written*, not copied and re-formed. May I be permitted to suggest to its able contributors that there is an important question that lies right in its broad pathway that I do not remember to have seen answered specifically and in exact terms? This:—

At what exact point do the skeptical scientists, Darwin, Spencer, Huxley & Co. contradict the Bible? Or, to vary the question:— Is there a point within the domain of logical conception, where a specific denial of the doctrine of Divine Origination can be fixed? Has the doctrine of the Divine Origination, of either Matter or Man, been specifically denied—I do not mean, in the flippancy of mere irresponsible say so, but with logical intents? If such denial is contained in the writings of the gentlemen above named or elsewhere, I have overlooked it in my reading.

Evolution, evidently, does not touch the question. Evolution

relates to the *history* of existing things, and not to something anterior to its existence, nor yet in the process of its coming into existence, if indeed there ever were any such processes, which may be very safely doubted. Is there testimony, not to say evidence, within reach of the human intellect by which absolute origin may be either affirmed or denied? It is printed in a book, dogmatically and without explanation, that God originated whatever is. Is that fact susceptible of either proof or denial?

The Bible plainly says that Man, in his beginning, was not an origination, but a making. That is, something pre-existing which was not man, became Man, and that God was the Agent in such change.

Now, has that fact been denied? If so, I have not marked it in my reading. They tell us a great deal about the *how*, but have they said any thing about the *whether*? The former is not in question; we are interested only in the latter. Something existing became Man by Divine agency; so the Bible says, but it is totally silent as to the *how*. Quite likely this *how* could not be explained to the human mind. We have neither knowledge nor conception as to *how* God does anything. Frequently we see an intermediate or sub-agency or instrumentality, but have no knowledge as to *how* God operates such sub-agency. Our knowledge of the *whether* rests solely on the unexplained dictum.

Skeptical naturalists claim to have discovered a great deal about the material out of which man "grew"—that this process of growing or maturing required a very long time—was very gradual, and very "natural." On all these points the Bible is totally silent. They all relate to the *how*, not to the *whether*. And as Scripture says nothing as to the *how*, there is in it nothing on that point to contradict. I see no objection to the statement that "man grew." That relates to the *how*—the process. Man was "made;" so there can be no serious objection to the word "grew." Perhaps that was the mode of his creation. To say man *grew* does not imply that he was not created. It says something as to the mode, and that might imply something as to the time employed in the process. This argument is all on one side, for the Bible says nothing about the process, if indeed there was any.

The Bible says Man, or to be more exactly accurate, Adam's race, *began to be*, about six or seven thousand years ago, according to our best chronology—that some or some kind of material was employed, in some way not stated, in his making. Our skeptical philosophical friends claim to inform us a great deal about this material, immediate, mediate, remote, and still more and still more remote. While this is not satisfactory to all of us, for the reason that they fail to explain how they get their information, and as at most it is an exclusively scientific subject, it is not so easy to see what the mere Christian philosopher cares about it. All Christian philosophers are not necessarily versed in Natural science.

Whenever the scientist *contradicts* Scripture then the Christian interposes his peremptory objection. But to contradict a certain theologian's construction of certain Scripture expressions not vital to religious truth, however erroneous such criticism might be, might not be fatal to Christianity itself.

To point out errors in the teachings of our skeptical friends, is one thing, to point out the exact point of collision with Scripture, might be another. If there is such a point, would it not be well to make it so plain that we could all see it?

“And God created man in his own image, in the image of God created he him; male and female created he them. And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.”

Now, if that proves *how* man came into being—that it was a phenomenal, local proceeding in the nature of an artistic, mechanical manipulation successfully accomplished, begun and completed in a day or an hour, then it has the fatal but not very uncommon misfortune of proving too much. What does the proof prove? would be a question not easily answered. To prove that the creation of man was not a local fabrication, and *therefore* not a Divine creation, would be the same as to disprove the statement that, “The world also is established that it cannot be moved”—by showing its rotary motion. And so, the Bible is disproved by showing the earth's physical antiquity! One of the easiest things to prove is something that is not denied. So

chemistry "proves" the non-resurrection of a man's flesh. But biblical resurrection is predicated of the man himself, and not of some of his mundane properties.

FROM PROF. ELLIOTT COUES, READ BY REV. E. C. RAY.

[Dr. Coues is a member of the National Academy of Sciences, of the American Philosophical Society, Corresponding Member of the Zoological Society of London, and is a member of many other societies. He is the founder of the Gnostic Theosophical Society of Washington, and a Fellow of the Theosophical Society of India. He is the author of several hundred monographs, papers, and scientific periodicals.]

With reference to your inquiry, I beg to say:

1. Unquestionably, persons of acknowledged scientific authority have specifically denied the Divine origin of matter and of man. Such are the materialists pure and simple.

2. Others of equally eminent position, like Spencer and Huxley, have endorsed upon the inquest "ignoramus." Such constitute the school of "rational agnostics," which is probably the dominant one to-day.

3. Others again of no less learning and recognized position have maintained the Divine origin of matter and of man.

Probably Newton and Faraday exemplify this third class. I believe such are in a very small minority at the present day, and probably would not be considered by the other two classes as having placed their views on a sound logical basis.

I should doubt that either the affirmation or denial of the point would be regarded possible "on logical grounds" by the majority of scientists.

FROM PROF. EDWARD D. COPE, READ BY REV. ALEXANDER HENRY.

[This gentleman was Professor of Natural Science in Haverford College from 1864 to 1867. He has been a voluminous contributor to scientific literature. His studies have ranged through zoology and paleontology. He has done much in the interest of accurate scientific classification. He has treated the hypothesis of evolution in various aspects. His latest book considers the "Theology of Evolution."]

Your circular of May 13 requests an answer to the following questions: "Have persons of acknowledged scientific authority

specifically denied the Divine origination of matter, or man, and placed such denial on logical grounds? If so, when and where?"

To this I would reply that scientific specialists seldom in modern times express their opinions, if they have any, on these questions, in print. The only such expression which I recall at the present moment is that of Haeckel, who writes of the "unthinkable dogma of creation." The questions of the origins of matter and of man are quite diverse, and to them different answers must be given. My intercourse with men of science enables me to say that I never heard one of them declare his belief in the creation of matter. But I have heard many of them, in fact all biologists with whom I am acquainted, excepting one or two, declare their belief in the creation of man by evolution, but whether by Divine action or not is not generally specified.

So far, your questions are answered. Should you desire to have an opinion from me, I give it for such use as may please you.

I do not believe in the creation of matter, that is, of primitive matter, for these reasons. First, it is impossible to create something out of nothing. Second, I believe mind to be eternal, and mind cannot exist without a physical basis. Third, the Creator, being mind, has a physical or material basis. Therefore, fourth, the Creator could not have created matter, as this would require that He create himself, which is absurd.

I do believe in the creation of man, both mentally and physically, by a process of descent with change, called evolution, by the activity of mental properties derived from the primitive mind or Creator, or else developed from forms of energy which are themselves derivatives of a primitive mind. Which of these two hypotheses is correct, science is not yet, and will not be for a long time, in a condition to decide.

FROM LESTER F. WARD, A.M., READ BY REV. L. LIVINGSTON TAYLOR.

[This gentleman is connected with the United States Geological Survey, and also with the National Museum. He has published a "Guide to the Flora of

Washington," "Sketch of Paleobotany," and other papers. His best known work is his "Dynamic Sociölogy," in two volumes.]

In reply to the question propounded to me through your favor of May 11th last by the Executive Committee of the Institute of Christian Philosophy, as to whether persons of acknowledged scientific authority have specifically denied the Divine origination of matter, or man, and placed such denial on logical grounds, and if so, when and where, I beg leave to say that it would probably be somewhat difficult to collect numerous instances of the precise nature prescribed in the question, for several reasons.

In the first place, "persons of acknowledged scientific authority" are not in the habit of specifically denying anything but statements of fact proved to be erroneous, and in such cases the denial is not based on *logical* grounds, but on the production of the negative evidence.

In the second place, such persons do not dogmatize about questions that are beyond the range of the faculties of observation, as is clearly the question of the origin of matter and of man. If any positive statements upon this question occur in the writings of scientific men, it should be understood that they are merely meant to represent the opinions of these men as derived from the evidence in their possession, and the apparently dogmatic form of statement is solely to avoid prolonged and repeated qualifications which would be incompatible with good style.

In the third place, science is essentially constructive and not destructive—though in some cases it is necessary first to clear the ground of obstructing doctrines before any tenable hypotheses can be erected thereon, and this clearing process is often regarded as destructive—and any who should doubt the Divine origination of matter and man would do so because they supposed they perceived evidence of their natural origination; and their method, instead of denying the former, would be to present the evidence in favor of the latter.

The form of your question, therefore, practically precludes the possibility of answering it very definitely and at length in the affirmative, since it would require those belonging to the class

defined by it to do that which would in itself tend to exclude them from that class.

Just here I would beg to call your attention to a possible ambiguity in your unqualified use of the word "Divine." There are those who, holding that "whatever is, is Divine," would make this word apply to *any* origin of matter or life. I have assumed, however, in understanding your question, that you use it in the ordinary sense, not as including both the natural and the supernatural, but as referring to the theologically supernatural as opposed to the scientifically natural.

The evolutionary account of the origin of certain species and genera, as Man (without claiming that this hypothesis must be already held as fully demonstrated), is a natural account and violates no known laws. The theological account of the origin of certain things, as Man from the dust of the ground, or Woman from the masculine rib (according to the second story of creation as told in Genesis), is a supernatural account and requires a Deity working beyond any known natural laws to produce this result. This latter (without implying any opinion as to its truth, and ignoring the fact that there are numerous other accounts of similar nature) may justly be considered an account of the "Divine origination" of man. So too the origin of matter conceived as created out of nothing would be a "Divine origination" of matter.

But while many may have a clear and logical opinion as to the origin of man, when the question as to the origin of matter is presented to men of "acknowledged scientific authority" they are prompt to reply that they know nothing about it, and that science at present has no means of knowing anything positive on the subject, however well convinced they may be that certain stories of its origin are false. Science has not yet worked back to "In the beginning," and she is careful not to assert knowledge where the data of that knowledge cannot be had. No competent scientist has yet reached the question as to the absolute origin of matter, yet its Divine "origination" in the sense of being created out of nothing, has been abundantly and specifically denied by practically every non-theological philosopher who has had occasion to consider the subject at all. The great trend of such

philosophy has been to look upon matter as eternal, uncreatable, and indestructible; and any query as to its origin would be regarded as on a par with one about the boundaries of space.

Coming to what is properly the second part of the question, as to whether persons of acknowledged scientific authority regard the evidence now in the possession of science as unfavorable to the conception of a Divine origination of man, in contradistinction to a natural origination, it may be stated clearly that many of the very highest scientific authorities do so regard it. That several of them have stated their objections to this conception, not only on "logical grounds," but by legitimate inductive arguments with the presentation of the evidence, is a matter of general information.

To refer to only one such person, a striking and trite instance of a man of "acknowledged scientific authority," whose work and line of thought have led him to consider the question as to the origin of things somewhat carefully, is Prof. T. H. Huxley. I will cite simply three passages from his writings, which show that when called upon to express an opinion as to the "Divine origination" of man, he gives forth no uncertain sound:

(1) "I do not know of any rational conception or theory of the organic universe which has any scientific position at all beside Mr. Darwin's. I do not know of any proposition that has been put before us with the intention of explaining the phenomena of organic nature, which has in its favor a thousandth part of the evidence which may be adduced in favor of Mr. Darwin's views. Whatever may be the objections to his views, certainly all others are absolutely out of court." (See his sixth lecture "On the Origin of Species." The passage may be found in the Humboldt Library of Popular Science Literature, No. 16, p. 222.)

(2) "There is but one hypothesis regarding the origin of species of animals in general which has any scientific existence—that propounded by Mr. Darwin." (See his "Evidence as to Man's Place in Nature," Chap. II. Printed also in Humboldt Library, No. 4, p. 232.)

(3) "My belief, on the contrary, is, and long has been, that the Pentateuchal story of creation is simply a myth." (See recent

article by him in the *Nineteenth Century*. Reprinted in the *Popular Science Monthly*, April, 1886, p. 795.)

It is well known that the two most important works that Darwin wrote, the "Origin of Species" and the "Descent of Man," were devoted to demonstrating the natural origination of all animals, and particularly of man. Prof. Ernst Haeckel—the Darwin of Germany—goes further and declares for the unity of law, or monism, in all departments of nature. As further illustrating the views of these two pre-eminent scientific authorities, although, perhaps, not precisely in line with the interrogatory formulated by you, I may possibly be permitted to introduce, in concluding my reply, a bit of history that is known to very few readers of English, either in the religious or the scientific world.

The great memorial address on Darwin and his predecessors which Prof. Haeckel was invited to deliver before the Association of German Naturalists and Physicians which met at Eisenach on the eighteen of September, 1882, next following the death of the English savant, was telegraphed in English as soon as delivered to the leading scientific journal of England, but to the great surprise and chagrin of those who knew what it contained, a certain portion was expunged from the latter. (See *Nature*, Vol. xxvi., Sept. 28, 1882, p. 540, column 2.) I happened to glance over the address as it appeared in the *Deutsche Rundschau*, and to detect the missing passage, including a most important letter from Charles Darwin to a German student, Nicolas Baron Wengden, not otherwise made public, but unfortunately here translated into German. I was unable to refer to the original English of this letter, until some months later I received from Prof. Haeckel's hand the revised address in pamphlet form, in which the letter as written by Darwin was given as a foot-note. I have made a translation of the part omitted from *Nature*, in which the letter occurs, and would offer the whole as having a bearing upon your inquiry as well as a general interest for both Christianity and Science. It runs as follows:

"That even Charles Darwin was penetrated by this religion of nature, and was no short-sighted adherent of any special sect, is obvious to every one who is acquainted with his works. But as some of his countrymen immediately after his death stated

the contrary, and as a few bigoted priests have even glorified Darwin as an orthodox follower of a specific confession of the English Church, we may be permitted to refute this falsehood by an unequivocal proof. I am so fortunate as to be able to produce an inestimable document, hitherto unknown, which leaves no doubt on this point. A studious young man, animated by an honest zeal for knowledge, whom I had the pleasure of seeing again a few months ago among my pupils at Jena, had become perplexed through the reading of Darwin's works about the Christian belief in revelation, which he had hitherto regarded as the most valuable foundation of his convictions. Pressed by serious doubts, he wrote to Darwin and asked him for enlightenment, especially as to his views of the immortality of the soul. Darwin sent him back word, through a member of his family, that he was old and unwell, and too much burdened with scientific labors to be able to answer these difficult questions. But the young truth-seeker did not rest content with this, and again addressed to the revered old man an appeal as touching as it was urgent. This time there came as an answer a letter from Darwin, written and signed by his own hand, in the following words:—

“ ‘ DOWN, BECKENHAM, KENT.

“ ‘ June 5, 1879.

“ ‘ DEAR SIR,—I am much engaged, an old man, and out of health, and I cannot spare time to answer your question fully—provided it can be answered. Science has nothing to do with Christ, except so far as the habit of scientific research makes a man cautious in admitting evidence. For myself, I do not believe that there ever has been any revelation. As for a future life, every man must judge for himself between conflicting vague probabilities.

“ ‘ Wishing you happiness,

“ ‘ I remain, dear sir,

“ ‘ Yours faithfully,

“ ‘ CHARLES DARWIN.*

* This letter was quoted in the second anniversary address by the President of the Institute of Christian Philosophy and published in the first volume of *CHRISTIAN THOUGHT*, October, 1883, p. 100, and widely republished.

"After this open confession no one will any longer be in doubt that the religion of Charles Darwin was none other than that of Goethe and Lessing, of Lamarck and Spinoza. This monistic religion of humanity stands in no way in antagonism to those fundamental doctrines of Christianity which establish its true value. For the universal love of mankind as the fundamental principle of morality is contained in the former as in the latter. Its original source, as Darwin has shown, is to be sought in the social instincts of the higher animals, those psychic functions which the latter have acquired through adaptation to co-operative social life, and have transmitted to men through heredity."

FROM SIR J. W. DAWSON, READ BY REV. MR. RYLE.

[Sir John William Dawson, LL.D., F.R.S., F.G.S., was born in Pictou, N.S., in 1820. He was educated at the University of Edinburgh. He was appointed Superintendent of Education in Nova Scotia, 1850, and Principal of McGill College, Montreal, in 1855, a position which he still holds. He is the author of "Acadian Geology," "The Story of the Earth and Man," "Life's Dawn on Earth," "Fossil Men and their Modern Representatives," and various other articles and monographs.]

In reply to the question respecting the "origination of matter" in your favor of May 12, as I have a little leisure in my summer retreat at this place, I have much pleasure in answering, so far as I am able—premising, however, that legitimate science decides nothing on the authority of great names, but only on sufficient evidence. I may say as to the subject referred to:

(1) I am not aware that science has obtained any data on which to base certain conclusions as to the origination of matter. We know something of the properties of matter, but these do not inform us as to its origin.

(2) I have no doubt that many men of more or less scientific reputation, doubt or deny the "Divine origination of matter." Such doubt or denial can, however, have no value as regards other minds, in the absence of facts indicating the origination of matter in any other way.

(3) It is probable that some scientific men are honestly atheists or agnostics. Such men may disbelieve the Divine

origination of matter, not on scientific grounds, but because they do not believe in God. In this case their opinions on the subject cannot be said to be based on science, and are of no more weight than those of any other atheists or agnostics.

(4) I cannot for my own part conceive of any logical grounds on which the origination of matter otherwise than by a Higher Power can be maintained.

FROM J. P. LESLEY, STATE GEOLOGIST, PENN.

[This letter was unintentionally omitted when the other letters were read, but must not therefore be withheld from our readers. Mr. Lesley was born in Philadelphia in 1819, graduated at the University of Pennsylvania in 1838, and at Princeton Theological Seminary in 1844, was Assistant Geologist in the first survey of Pennsylvania in 1839-41. He traveled on foot through France, and studied in the University of Halle in 1844. In 1845, he established the colportage system of the American Tract Society in the northern and middle counties of Pennsylvania. He was pastor of the Orthodox church in Milton, Mass., in 1847, and retired from the ministry in 1850. He has held various official positions of a scientific character,—has been Secretary and Librarian of the American Philosophical Society, Professor of Geology and Mining Engineering in the University of Pennsylvania, and State Geologist of Pennsylvania. He was one of the corporate members of the National Academy.]

I am sorry to be obliged to confess, in reply to your favor of the 12th May (received here during my protracted absence), that I take so little interest in the question you propose for answer, and any answer to it lies so widely aside from my lines of duty, that I cannot give it the consideration which you think to be its due.

It is of no importance, in my opinion, whether the "Divine origination of matter," *i. e.*, the creation of the material universe out of nothing, has been affirmed or denied by any kind or class of individual thinkers. It is a purely metaphysical subject of thought, about which men have never had any knowledge and can never get any. We know nothing about the being and powers of the Deity. We cannot find out the difference between Essence and Phenomenon; and in that difference, if there be a difference, lies hid from all eyes the explanation of Creation. Men of the highest science in our day are in no better circumstances for arguing the point than any of the great philosophers

and leaders of sects and founders of religious schools in past ages. I do not read, because I cannot waste my time in reading, metaphysical literature; and what of it falls under my eye in going through the literature of science inspires me with as little curiosity as respect. Enough that I can study the world which God has (somehow) made and regulates in shape and manner to inspire me with the profoundest admiration and love for Him, and confidence in Him, and the warmest sympathy for my fellow-creatures.

FROM S. P. LANGLEY, ACTING SECRETARY, SMITHSONIAN INSTITUTE.

[The following letter, also, was not read, but is furnished to our readers.]

In reply to the inquiry of your communication dated May 12, I would say, that as the resources of this Institution are devoted exclusively to the advancement of *experimental* knowledge, the bearings—direct, or indirect,—of such researches on theological or spiritual philosophy lie entirely beyond its province.

In a general way, it might be answered, that “persons of acknowledged scientific authority *have* specifically denied the Divine origination of matter, and of man;” that others as eminent have maintained the Divine and special creation of matter, and of man; and that still others have held the subject to be inscrutable, and hopelessly removed outside the bounds of human knowledge. To collect specific quotations from these several classes of authorities would require a special and prolonged literary research.

The very diversity of opinion indicated would seem to show that the philosophy of the ultimate and absolute, cannot properly fall within the domain of physical science.

[A number of gentlemen made remarks on these letters, only one of whom, A. H. Lewis, D.D., has furnished a report of what he said.]

DR. LEWIS said :

The question of Dr. Abbey seems to me to have a deeper meaning than lies on the surface. It is this: “Can science logically deny the Divine origin of matter and of man?” He

is correct in suggesting that they have not done this. They have made the denial, as posemists, or dogmatists, but not *on logical grounds*. They cannot do this. Physical science deals with the qualities, the phenomena of matter. It can make no legitimate deductions except from established facts within the realm of its experiments. The dim eyes and clumsy fingers of physical science soon reach their utmost limit. When phenomena can no longer be weighed, measured, analyzed, science stands mute and helpless. At that point its mission ends. It can trace the qualities of matter no further than the limit, when phenomena can be tested by physical standards, scales, retorts, test-tubes. The forces which lie back of all these phenomena remain untouched. Neither these forces nor their origin come within the grasp of physical science; hence it can make neither denial nor affirmation concerning the Divine origin of things. As well ask the brawny hand of an untaught boor to do the delicate work of an oculist. Logical deductions under such circumstances are as impossible as to lay granite foundations on the sheen of moonbeams. Hence it is that most scientists, speaking as scientists, take refuge in the mists of Agnosticism. It is their one safe retreat. Some seek to avoid the issue, and palliate denial, by talking of "Unknown Causes," or "the Unknown, and Unknowable," or "the hidden qualities of protoplasm." All this is simply an acknowledgment of ignorance. Spiritual philosophy, on the other hand, when asked—of the origin of matter and of man—answers:

God, the Self-conditioned and Absolute, is the one primal source of all things. "In the beginning," He created all, not *ex-nihilo*, but from the resources of His own being. *Matter is a form of Divine Force, objectized and localized.* Herein is the mystery which we call the "Conservation of forces." "Nature" is our name for those forms and manifestation of Divine power of which we know something, and which we can in part measure. Pantheism is a half-truth. God is in everything. There is no antagonism between nature and the supernatural,—it were better to say *supra*-natural. They form one harmonious whole, of which we see and handle the fringe on the lower side of the endless fabric. But beyond that which we see and measure by material

standards, the clearer vision of the soul, and the more delicate fingers of the spirit, see and test much that science must forever call "unknown." Even "while in the body pent" Faith knows much which cannot be put into formulæ, nor explained in detail according to material standards. Knowing thus much, Faith, *i. e.*, soul-sight, awaits without fear, that fuller knowledge which will greet us as we pass out of these shadows, into the eternal sunlight just beyond. Therefore, we know what we believe.

TENTH SUMMER SCHOOL, 1887.

BY THE SECRETARY.

THE Tenth Summer School of the Institute was held in the auditorium of the Seaside Assembly at Key East, from August 16 to August 25, 1887.

The reception of the faculty by the officers and members of the Institute took place Tuesday evening, August 16, at 8 o'clock. The President, Rev. Dr. Charles F. Deems, was in the chair. Prayer was offered by Rev. Stephen Lyle, of Toronto, Canada. The President explained the general aim of the Institute, and answered questions regarding its work and management. The meeting closed with a pleasant social reunion.

The first regular session of the school opened Wednesday, August 17, at 11.30 A.M. The devotional exercises were led by the President. The lecture of the day was by Lyman Abbott, D.D., Editor of the *Christian Union*, New York. His subject was "Some Modern Aspects of Skepticism." As Dr. Abbott had an engagement for the afternoon, the usual discussion took place immediately after the lecture. It was conducted by Mr. Stephen N. Wilder, of New York, and Dr. Deems.

In the afternoon at 3 o'clock, a Symposium was held on the following question addressed by Rev. R. Abbey, D.D., of Mississippi, to the President of the Institute: "Have persons of acknowledged scientific authority specifically denied the Divine origination of matter, or of man, and placed such denial on logical grounds; and if so, when and where?"

Dr. Abbey's letter of inquiry was read by Mr. Phœbus W. Lyon, of Summit, N. J.

In answer, Prof. Elliott Coues's letter was read by Rev. Edward C. Ray, of Hyde Park, Ill. Prof. Edward D. Copes's letter was read by Rev. Alexander Henry, of Philadelphia; Mr. Lester F. Ward's, by Rev. Livingston Taylor, of New York; and Sir J. William Dawson's, by Rev. Stephen Lyle, of Toronto, Canada.

The subject was discussed by Mr. S. N. Wilder, of New York; Rev. Dr. A. H. Lewis, Plainfield, N. J.; Rev. J. H. McElvey, Jersey City; Rev. Dr. J. S. Van Dyke, Cranbury, N. J.; Rev. S. Lyle, Toronto, Canada; Rev. J. Richelsen, Philadelphia; Rev. Dr. E. V. Gerhart, Lancaster, Pa.; and Rev. Dr. Deems.

At the second day's session, Thursday morning, August 18, in the absence of the President, who had been suddenly called to New York, Rev. Dr. Emanuel V. Gerhart, President of the Theological Seminary at Lancaster, Pa., presided, and conducted the devotional exercises. The regular paper of the day was by Rev. James F. Riggs, of Bergen Point, New Jersey, whose subject was, "History, a Demonstration under the Moral Law." In the afternoon, the subject and paper were discussed by Messrs. Phœbus W. Lyon, Joseph Clark, Rev. Dr. A. H. Lewis, Rev. Mr. Lyall, Dr. Deems, Dr. Gerhart, Rev. J. H. Mac El Rey, and the lecturer.

At the close of the session a meeting of the members of the Institute was called to order by the President. On motion of Mr. Lyon, seconded by the Secretary, it was "Resolved, that the President appoint a committee of three to nominate officers of the Institute, and report at the annual meeting, to be held on Saturday, the 20th instant." The President appointed Messrs. Joseph A. Hallock, Phœbus W. Lyon, and J. H. Mac El Rey.

On motion, adjourned.

On Friday morning, August 19, the President being in the chair, the devotional exercises were led by Rev. Dr. J. S. Van Dyke, of Cranbury, N. J. The paper of the day was by Rev. Dr. Isaac S. Hopkins, President of Emory College, Georgia. His subject was "Paul's Psychology." The discussion in the afternoon was conducted by Rev. Drs. Lewis, Vernon, Deems, Mac El Rey, and Hovey, Messrs. Lyon and Davis, and Prof. De Volson Wood, of Stevens Institute.

ANNUAL MEETING.

The Annual Meeting of the Institute was held in the Auditorium, Saturday, August 20, at 11.30 A.M.

Vice-President Wm. C. Cattell, ex-President of Lafayette College, presided, and conducted the devotional exercises.

The Treasurer's Report was read by the Secretary, and was as follows:

TREASURER'S REPORT.

Balance in Treasury July 1, 1886	\$35 11
Received from donations	525 00
" " collections	68 35
" " sale of odd nos.....	3 50
" " correspondence school	14 00
" " membership fees.....	<u>1641 92</u>
	\$2287 88
Paid for summer school	\$403 75
" clerical services.....	662 58
Supplying CHRISTIAN THOUGHT	
to members	1005 66
Supplying stationery	82 24
" postage	98 61
" monthly meetings	97 45
" traveling expenses	9 80
" correspondence school..	1 00
" petty items	<u>3 57</u>
	\$2364 66
Balance due Treasury	<u>\$76 78</u>

The *Auditing Committee* made the following report:

"KEY EAST, N. J., August 20, 1887.

"We have examined the books, accounts, and vouchers of the Treasurer and of the Assistant Treasurer of the American Institute of Christian Philosophy, and find the same to be correct.

"OWEN O. SCHIMMELL,

"PHŒBUS W. LYON,

"*Auditing Committee.*"

SECRETARY'S REPORT.

The Treasurer's Report shows that \$2,287.88 have been received, and \$2,364.66 paid out, leaving a balance of \$76.78 due the treasury. It is proper to say that the deficit has been made good; also, that there is now due the Institute over \$700, chiefly from members who have allowed their fees to remain unpaid for several years, although bills are sent regularly every year, and sometimes twice a year. Could the members all be prompt in the payment of their fees, it would save the officers much trouble, and greatly enlarge the operations of the Institute. The sum is small to each, but the aggregate is great to the Institute.

Membership.—There are two classes of membership, *Life* and *Annual*. Those who give \$50 or more for the general expenses are life members; \$100 or more contributed to the Endowment Fund make an *Endowment* member, also for life; \$5 a year constitute an annual member.

There are no honorary members. It was decided at the organization of the Institute that only such persons should become members as were sufficiently interested in its work to pay the regular annual fee of membership, or a larger sum and become life members.

There were, June 30, ten (10) *endowment* members, forty-nine (49) *life*, and four hundred and fifty-eight (458) *annual*. Of these last the membership of forty-seven (47) was not renewed, leaving, July 1, a membership of 470.

To these must be added to-day fourteen (14) new names, making a total of 484.

Following are the names of members who have joined the Institute since June 30, 1887: Frank Luther Johnston, St. Louis, Mo.; Laertes T. Conrad, B.S., Amherst, Mass.; Rev. John B. Koehne, Allegheny City, Pa.; J. Ackerman Coles, A.B., A.M., M.D., Scotch Plains, N. J.; Henry Kirke Porter, A.M., Pittsburgh, Pa.; George M. Ward, A.M., Editor, Lowell, Mass.; Hon. William C. P. Breckenridge, M.C., Lexington, Ky.; Seaborn A. Driver, Augustine, Ala.; J. McCloskey Blayne, D.D., Frankfort, Ky.; Warren N. Goddard, A.B., New York; Edw. Aug. Davies, F.R.G.S., Sunny Bank, Stockport, England;

Joseph J. Smith, A.M., D.D., Tomkins Cove, N. Y.; Rev. Edward C. Ray, A.B., A.M., Hyde Park, Ill.; Rev. Joseph H. Mac El Rey, M.D., Trainer, Pa.

A Summer School was held at Key East from August 17 to August 26, 1886, at which eight (8) lectures were delivered. Papers have been read at eight (8) monthly meetings in New York city. These papers and lectures were afterward published in *CHRISTIAN THOUGHT*. The creation, publication, and circulation of this literature, are the *raison d'être* of the Institute. The schools and monthly meetings do not attract large numbers; and while those who do meet on these occasions greatly enjoy them and certainly receive great benefit, they are not the ones whom the Institute designs chiefly to reach. This literature aims to counteract the materialistic and agnostic tendencies of the age. To do this with any success, it must reach our colleges, seminaries, and universities. In addition to circulating it through members and subscribers, another plan has been adopted. It is that of a *Circulating Library*. At a meeting of the Executive Committee held in New York, January 20, 1887, it was "Resolved, that an effort be made to raise \$125 to invest in numbers and volumes of *CHRISTIAN THOUGHT* to constitute a *Circulating Library*."

Messrs. T. E. F. Randolph, William O. McDowell, L. P. Tibbals, Elliott F. Shepard, Prof. J. H. Deems, and Prof. J. D. Dana, gave each \$5; Rev. A. Mackay-Smith \$10, Rev. Dr. Deems \$20; making a total of \$60. There were in circulation, July 1, 1887, 125 unbound copies, and 32 bound volumes of *CHRISTIAN THOUGHT*.

The following printed slip is pasted on each volume or number:

No.

To the Person receiving this Book:

Please read it, then give it to another, with the request that it be read and passed on. The object in sending it is to have as many as possible enjoy it. No doubt the donor will be pleased to hear from any who are entertained or benefited by this book.

Those who wish to do so may send such contribution as they desire to the undersigned; it will be used for the purchasing and distributing of approved books in this way, and the name and address of the donor will be written on each book.

C. M. DAVIS, *Sec.*,

4 WINTHROP PLACE, N. Y.

This Book is given by.....

Address.....

At a meeting held in March last, the Executive Committee adopted, and directed the Secretary to send to every one of its members, a *Circular Letter* concerning the work of the Institute.

As this letter is published in the August number of *CHRISTIAN THOUGHT*, it is not necessary to repeat here, although important, the different points there presented.

There is one sad duty which the Secretary has to perform every year; never with greater sadness than to-day. It is to read the names on our *Obituary List*.

Obituary.—Hon. Abram H. Conger, New York. Joseph B. Cooper, D.D., Allegheny, Pa. Prof. James W. Dodd, LL.D., Vanderbilt University. Rev. Samuel Willoughby Duffield, Bloomfield, N. J. John Forsyth, D.D., Newburgh, N. Y. Rev. William J. Gill, Schooley's Mountain, N. J. Mrs. F. E. H. Haines, New York. Pres. Roswell Dwight Hitchcock, D.D., LL.D., Union Theol. Sem. Mark Hopkins, D.D., LL.D., ex-Pres., Williams College. Daniel Curry, LL.D., New York.

The President then delivered the Annual Address; after which remarks were made by Rev. Drs. Adam Wallace, of Ocean Grove, Horace C. Hovey, of Bridgeport, Ct., and Emanuel V. Gerhart, of Lancaster, Pa.

The Nominating Committee, through their chairman, Joseph A. Hallock, made their report, which was accepted, and Mr. Hallock was directed, by a vote of the members present, to cast the ballot for the officers.

The following were elected:

President : CHARLES F. DEEMS, D.D., LL.D.

Vice-Presidents :

Ala.	GEORGE M. EVERHART, D.D.
Del.	Hon. THOMAS F. BAYARD, Secretary of State, U.S.
Fla.	E. WARREN CLARK, D.D.
Ga.	ISAAC S. HOPKINS, D.D., Ph.D.
Ill.	Rev. Bishop CHARLES E. CHENEY, D.D., LL.D.
Iowa.	THOMAS E. FLEMING, D.D.
Kan.	ROBERT CRUIKSHANK, D.D.
Ky.	ORMUND BEATTY, LL.D.
Me.	WM. DE WITT HYDE, D.D.
Md.	EDWARD J. DRINKHOUSE, M.D., D.D.
Mass.	Rev. JOSEPH COOK.
Mich.	ALEX. WINCHELL, LL.D.
Miss.	Rt. Rev. HUGH MILLER THOMPSON, S.T.D., LL.D.
Mo.	Rev. Bishop EUGENE R. HENDRIX, D.D.
N. B. (Can.).	JAMES R. INCH, LL.D.
N. J.	FRANCIS L. PATTON, D.D.
N. Y.	RANSOM B. WELCH, D.D., LL.D.
N. C.	Hon. KEMP P. BATTLE, LL.D.
N. S. (Can.).	Rev. WILLIAM AINLEY.
Ohio.	Rt. Rev. GREGORY T. BEDELL, D.D.
Pa.	WILLIAM C. CATTELL, D.D., LL.D.
R. I.	HENRY C. WESTWOOD, D.D.
S. C.	GILBERT K. BRACKETT, D.D.
Tenn.	Rev. Bishop HOLLAND N. McTYEIRE, D.D.
Va.	Gen. G. W. CUSTIS LEE.
Vt.	Rev. SAMUEL W. DIKE, A.B.

Trustees : D. STUART DODGE, CLINTON B. FISK, D. WILLIS JAMES, JOHN H. OSBORNE, CORNELIUS VANDERBILT.

Secretary : Mr. CHARLES M. DAVIS, No. 4 Winthrop Place, New York. *Treasurer* : Mr. WM. HARMAN BROWN, No. 64 Broadway. The President appointed the following Executive Committee: A. H. BRADFORD, S. M. HAMILTON, HOWARD HENDERSON, H. M. MACCRACKEN, A. MACKAY-SMITH, WM. O. McDOWELL, T. E. F. RANDOLPH, A. L. TURNER.

In the temporary absence of the President, Rev. J. H. Mac El Rey presided at the session held Monday morning, August 22. The devotional exercises were led by Rev. Dr. Horace C. Hovey, of Bridgeport, Ct. The regular paper of the day was by Rev. Dr. James T. Bixby, of Yonkers, N. Y., whose subject was

"Physical Theories of the Mind." This was discussed in the afternoon, by Drs. Hovey and Lewis, Mr. Lyon, Mr. Wilder, Pres. Scovel, Prof. Martin, and Mr. Mac El Rey.

On Tuesday, the 23d, the President in the chair, the devotional exercises were led by Pres. Scovel, of Worcester University, Ohio. Rev Dr. Bradford, of Montclair, being prevented by a long and painful illness from presenting the regular paper of the day, Dr. Deems, by request, read a paper on "The Philosophy of Bishop Berkeley." At the close of the lecture remarks were made by Rev. Livingston Taylor, Rev. J. H. Mac El Rey, Dr. Hovey, and Dr. Bixby. In the afternoon, Rev. Dr. Hovey, of Bridgeport, Ct., gave an address, illustrated by maps, on "Subterranean Scenery and Adventure." In the evening, Dr. A. H. Lewis, of Plainfield, N. J., read a paper on "The History and Philosophy of Sunday Legislation."

On Wednesday morning, August 24, the President being in the chair, the devotional exercises were conducted by Professor John T. Duffield, of Princeton College. The regular paper of the day was by Prof. Alex. T. Ormond, of Princeton, whose subject was, "Some Aspects of Theistic Logic." The discussion was held immediately after the lecture, and was conducted by Rev. Mr. Henry, Dr. Deems, Dr. Lewis, Prof. Duffield, Pres. Scovel, and Mr. Mac El Rey. In the afternoon, Prof. D. S. Martin, of New York, read a paper on "Christian Evolutionism and its Influence on Religious Thought." It was discussed by Pres. Scovel, Drs. Lewis and Mac El Rey, and Mr. Davis.

On the last day of the summer school, the President being in the chair, the devotional exercises were conducted by Rev. R. A. Paterson, of New Rochelle, N. Y. The paper of the day was by Rev. Thomas Hill, D.D., late President of Harvard University, and now Pastor of the First Parish Church, Portland, Maine. His subject was, "The Absolute, a Person." The discussion was held immediately after the address.

The School was closed with prayer by the President.

VIEWS AND REVIEWS.

PROFESSOR HUXLEY AND THE BIBLE.—Professor Huxley would evidently have his readers understand that he is familiar with the contents of Divine revelation. If so, he and the world are to be congratulated. The better the biblical scholar, other things being equal, the better the physical scientist. None of his brethren is prouder than Professor Huxley of the brilliant discoveries and manifold utilities of modern science, and but few of them are more unwilling to concede any credit to the Holy Scriptures as an involved force in such discoveries and utilities. He justly claims that “the most obvious and most distinctive feature of the history of civilization during the last fifty years is the wonderful increase of industrial production by the application of machinery, the improvement of old technical processes, and the invention of new ones, accompanied by an even more remarkable development of old and new means of locomotion and communication.” He waxes eloquent over the vast increase of the commodities and conveniences of existence, the raised standards of comfort, the improved health and longevity, the widening knowledge, and the growing brotherhood of the human family, but retains all his old and vigorous contempt of revealed religion.

Like the late Dr. J. W. Draper, Professor Huxley confounds things that differ—nay, things that are totally incompatible—when he dogmatizes outside the circle of purely physical science. A curious illustration of this error is the statement, that labors in the field of natural knowledge were brought to a stand-still, in large measure, by “the diversion of men’s thoughts from sublunary matters to the problems of the supernatural world suggested by Christian dogma in the Middle Ages.”

Intimate acquaintance with the pages of Neander, Milman, or any other writer of Church history, would have led him to the opposite conclusion, that the arrest was caused by Gnostic and other superstitions supplanting Christian dogma, and that Christian dogma itself is eminently favorable to the prosecution of scientific study. It is also somewhat amusing to find one who

ridicules much of theology as pure hypothesis insisting that hypothesis, and not induction, has "proved itself to be a most efficient—indeed, an indispensable—instrument of scientific progress."

Pure science, like religion, aims at the intellectual and moral development of men. Science is the handmaid and religion the mistress. Together they have worked "miracles which have modified the whole fashion of our lives." That which stirs the pulses of true scientists "is the love of knowledge and the joy of the discovery of the causes of things sung by the old poets—the supreme delight of extending the realm of law and order ever farther toward the unattainable goals of the infinitely great and the infinitely small, between which our little race of life is run ;" and thus of increasing our knowledge of the great Lawgiver and Ruler who seeks so to direct the race that it shall be rewarded with "a crown of righteousness" and eternal glory.

Science cannot progress without Scriptural holiness. "Nothing great in science has ever been done by men, whatever their powers, in whom the Divine afflatus of the truth-seeker was wanting. Men of moderate capacity have done great things because it animated them ; and men of great natural gifts have failed, absolutely or relatively, because they lacked this one thing needful." Only to them that fear Him does the Lord reveal His secret. The number of these may be small. "There may be wisdom in a multitude of counselors, but it is only in one or two of them," is Professor Huxley's dictum. And it is true. Godly men like Isaac Newton, Faraday, Clerk Maxwell, and Agassiz have been confessedly the wisest of their generation.

"Physical science is one and indivisible," he remarks. Its "object is the discovery of the rational order which pervades the universe"—of the way in which the Almighty Artificer works, we add. It postulates "the objective existence of a material world" as indispensable to its own working, and also "the universality of the law of causation." "Nothing happens without a cause, the rules, or so-called 'laws of nature,' by which the relation of phenomena is truly defined [are] true for all time." Differently stated, causation implies a Causator, law a Legislator, and the changelessness of law the immutability of the Lawgiver. In a sense infinitely more true than the proverb, that "all

roads lead to Rome," is it true that all things lead up to God as revealed in His written word. The postulates of physical science, like the teachings of the Bible, are in harmony with universal experience.

Christians may safely admit that interpreters have misunderstood various portions of the sacred records. Professor Huxley tells us that physical scientists have failed in the interpretation of their special volume. "Kepler was the wildest of guessers." Newton was mistaken in his corpuscular theory of light, and none of the modern authorities is certain that much of what he says is true. But misinterpretation of the subject does not militate against the truth of that subject. The error is in the man and not in the book. "It sounds paradoxical to say that the attainment of scientific truth has been effected, to a great extent, by the help of scientific errors." Not less paradoxical, and not less truthful, is the assertion that through errors and the conflict of errors have theologians been led to the knowledge of religious and ethical truth. Much in every department remains to be known. "Fresh truth will yet break out of God's word" is an anticipation as common to devout Christians as the saying was original with the Pilgrims' pastor, John Robinson.

"It would be hard to overrate the influence of metaphysical, and even of theological, considerations upon the development" of the doctrines of molecular constitution of matter, the conservation of energy and evolution. So Professor Huxley affirms, and so we believe. Revelation has imposed greater obligations upon himself and colleagues in their researches into the ultimate constitution of molar masses than they are willing to acknowledge. It has foreshadowed, if not plainly taught, every established truth of modern science. The indestructibility of matter as to its substance but not its form, the law of definite multiple proportion in chemistry, the practically permanent individuality of molecules, the doctrine of specific heat, the classification of the elementary bodies into different series, and their probable evolution from a primary undifferentiated form of matter, together with the progress of matter toward a finished state, are not so new to the Bible as to modern physics. They are more than hinted in the revelations of Him who made all things in due number, weight,

and order. The distinction between primary and derivative matter is real.

“ For this ethereal ‘ Urstoff’ of the modern corresponds very closely with the *πρώτη ψλη* of Aristotle, the *materia prima* of his mediæval followers; while matter, differentiated into our elements, is the equivalent of the first stage of progress toward the *ἐσχάτη ψλη*, or finished matter, of the ancient philosophy.” “ Theoretically, at any rate, the transmutability of the elements is a verifiable scientific hypothesis;”—all of which we steadfastly believe, but more particularly because we have the promise of Incarnate Truth to change these degraded bodies, and fashion them “like unto His [own] glorious body, according to the [mighty] working whereby He is able to subdue all things unto Himself.” Our hope of the resurrection of the body, and of indefectible happiness in heaven, rests on surer basis than that of science. But we do not disdain the smaller comforts offered by the latter at the hands of Professor Huxley. He says nothing that interferes, but much that confirms, accepted faith in the distinction between the spiritual and material constituents of human nature. So far from identifying mental phenomena with changes in the nervous system, he insists that “ the phenomena of consciousness which arise, along with certain transformations of energy, cannot be interpolated in the series of these transformations, inasmuch as they are not motions to which the doctrine of the conservation of energy applies. And, for the same reason, they do not necessitate the using up of energy; a sensation has no mass and cannot be conceived to be susceptible of movement. That a particular molecular motion does give rise to a state of consciousness is experimentally certain; but the how and why of the process are just as inexplicable as in the case of the communication of kinetic energy by impact.”

Professor Huxley’s latest scientific deliverances, notwithstanding occasional supercilious flings at his theological opponents, are of such manifestly veracious and honest character, and withal so serviceable to revealed truth, that we cannot but hope and pray that he may be long spared to continue his illustrious labors. Whatever else may suffer from his writings, the religion of Christ is sure to be the gainer.

Meanwhile the successor of Professor Huxley in the most important chair which he recently resigned is a devout Christian.—*Christian Advocate.*

SCIENTISTS AT PRAYER.—The interesting meeting for Christian testimony, held by the believing members of the Scientific Association, on the Sabbath during their session week last August, took place last Sunday afternoon in the room used by the Anthropological Section (H). A goodly number gathered there, and the chair was taken by Dr. Stephen D. Peet, of Illinois, the archæologist. The only person not a regular scientist who took part was the Rev. Dr. Alexander, of this city, who made a very happy opening prayer. Dr. Peet read I. Cor., Chap. 2, and commented thereupon; and many familiar hymns were sung with great warmth, Miss Helen Aitkin, of the Ladies' Reception Committee, gracefully leading at the organ. The principal feature, however, was the address made by the eminent Prof. Drummond, of Glasgow, which deeply impressed the meeting. His theme was Sanctification, and the true mode of attaining it, not by direct effort and toil, but as a natural and inevitable growth of character from intimate fellowship with the Saviour (II. Cor. 3:18); and his scientific treatment of the subject was strikingly characteristic, appropriate and stimulating. Among others who took part were Dr. De Forest, of Talladega, Ala.; Rev. H. C. Hovey, of Bridgeport, Conn.; Prof. D. G. Eaton, of Brooklyn; Prof. D. S. Martin, of this city; Dr. Kost, of Florida, etc. Prof. Drummond was requested to make a closing prayer, in which he very beautifully sought Divine light and grace for those brethren in science who are not brethren in Christ. Such a meeting is an occasion of remarkable interest, and those who had the privilege of being present will not soon forget this hour.

DEMOLISHING THE BIBLE.—The Bible is a book which has been refuted, demolished, overthrown, and exploded more times than any other book you ever heard of. Every little while somebody starts up and upsets this book; and it is like upsetting a solid cube of granite. It is just as big one way as the other, and when you have upset it, it is right side up still. Every little while

somebody blows up the Bible ; but when it comes down it always lights on its feet, and runs faster than ever through the world. They overthrew the Bible a century ago, in Voltaire's time—entirely demolished the whole thing. " In less than a hundred years," said Voltaire, " Christianity will have been swept from existence, and will have passed into history." Infidelity ran riot through France, red-handed and impious. A century has passed away. Voltaire has " passed into history," and not very respectable history either ; but his old printing press, it is said, has been used to print the Word of God ; and the very house where he lived is packed with Bibles, a depot for the Geneva Bible Society. Thomas Paine demolished the Bible and finished it off finally ; but after he had crawled despairingly into a drunkard's grave in 1809, the book took such a leap that since that time more than twenty times as many Bibles have been made and scattered through the world as ever were made before since the creation of man. Up to the year 1800, from four to six million copies of the Scriptures, in some thirty different languages, comprised all that had been produced since the world began. Eighty years later, in 1880, the statistics of eighty different Bible societies which are now in existence with their unnumbered agencies and auxiliaries, report more than 165,000,000 Bibles, Testaments, and portions of Scripture with two hundred and six new translations distributed by Bible societies alone since 1804 ; to say nothing of the unknown millions of Bibles and Testaments which have been issued and circulated by private publishers throughout the world. For a book that has been exploded so many times, it still shows signs of considerable life.

THE FALLING APPLE.—We have all heard the story that the great Sir Isaac Newton, sitting in an orchard, observed an apple fall from a tree to the ground, and that this slight incident suggested to him the law of gravitation. It is a very pretty story ; what a pity that it is not true ! The fancy is put to flight by Sir William Thomson in an address before the British Association, in which he said :

" Nearly all the grandest discoveries of science have been but the rewards of patient, long-continued labor in the minute sift-

ing of numerical results. The popular idea of Newton's grandest discovery is that the theory of gravitation flashed into his mind, and so the discovery was made. It was by a long train of mathematical calculation, founded on results accumulated through prodigious toil of practical astronomers, that Newton first demonstrated the forces urging the planets toward the Sun, determined the magnitudes of those forces, and discovered that a force following the same law of variation with distance urges the Moon towards the Earth. *Then* first, we may suppose, came to him the idea of the universality of gravitation; but when he attempted to compare the magnitude of the force on the Moon with the magnitude of the force of gravitation of a heavy body of equal mass at the earth's surface, he did not find the agreement which the law he was discovering required. Not for years after would he publish his discovery as made. It is recounted that, being present at a meeting of the Royal Society, he heard a paper read, describing geodesic measurement by Picard, which led to a serious correction of the previously accepted estimate of the earth's radius. This was what Newton required. He went home with the result, and commenced his calculations, but felt so much agitated that he handed over the arithmetical work to a friend; then (and not when, sitting in a garden, he saw an apple fall) did he ascertain that gravitation keeps the moon in her orbit."

THE CHANGING CIRCULATION.—Starting with the idea that the hand varies considerably in size with the quantity of blood present in it at any moment, Prof. Mosso, the Italian physiologist, has made some most interesting investigations. In his first experiments the hand was placed in a closed vessel of water, when the change in the circulation produced by the slightest action of body or brain, the smallest thought or movement was shown by a rise or fall in the liquid in the narrow neck of the vessel. With a large balance, on which the horizontal human body may be poised, he has found that one's thoughts can be literally weighed, and that even dreams, or the effect of a slight sound during slumber, turn the blood to the brain sufficiently to cause the balance to fall at the head. When the brain of the person balanced is being

relaxed from thought the flow is toward the feet, with a corresponding oscillation. The investigator has continued his studies of the circulation until it seems that he may almost read one's thoughts and sensations. A single pulse-beat shows him whether a person is fasting or not; two beats serve to determine whether the subject is a thinking or a heedless one, whether asleep or awake, cold or warm, agitated or calm. The changing pulse even told him when a professional friend was reading Italian and when Greek, the greater effort for the latter having due effect on the blood-flow.

THE paper by Prof. Martin which is published in this number elicited considerable discussion when read at the Summer School. All admired the spirit and ability of the Professor, but the opinion seemed to be almost unanimous that he was no evolutionist, that is, if the fathers, or the discoverers, or the inventors of evolution, such as Darwin, Spencer, Tyndall, Huxley, and Haeckel, know what it is. All which went to show the importance of maintaining the difference between "evolution" and "development," the former to mean that hypothesis which ultimately leads to the conclusion that mind is the product of matter, and the latter to the conclusion that matter is the product of mind.

THE EVANGELIST contains the following criticism on an article in a late number of the *Homiletic Review*:

"Prof. Alexander Winchell, on Recent Scientific Discoveries of Special Interest to Clergymen, maintains that evolution is a settled fact in science, and that 'it brings God into nearer relations with the world than is done by the usual forms of theistic belief,' and does not war at all with 'the authenticity and authority of our sacred Scriptures.' When, however, Dr. Winchell asserts that the doctrine of evolution 'has long since ceased to present the character of a question in the field of science,' does not his own scientific library contradict him? Dawson is in the field of science, and he says 'the simplicity and completeness of the evolutionist theory entirely disappear, when we consider the unproved assumptions on which it is based, and its failure to connect with each other some of the most important facts in

nature ; that, in short, it is not in any true sense a philosophy, but merely an arbitrary arrangement of facts in accordance with a number of unproved hypotheses. Such philosophies, "falsely so-called," have existed ever since man began to reason on nature, and this last of them is one of the weakest and most pernicious of the whole.' As Dr. Winchell asserts that evolution is now a question only in the field of theology, it is proper to assert the contrary. The general view of theologians is not unfavorable to a theistic theory of evolution, provided it be true; but they are quite capable of judging of the value of the evidence adduced for it, and will accept or reject it solely on its merits." Even here would it not be better to say, "theistic theory of development?" The development hypothesis can be held consistently with the creation hypothesis, because it may be held that God in the beginning made the universe on a plan which involved development up to a certain point and from time to time interfered by the bringing in of something not previously in matter. But evolution excludes creation, holding that matter, *quoad* matter, contains in itself, according to Prof. Tyndall, the "promise and potency" of all existence, or, according to Prof. Huxley, "the whole world, living and not living," or, according to Sir William Dawson, who, however, is not an evolutionist, that "human nature exists potentially in mere inorganic matter."

"THE theologically supernatural as opposed to the scientifically natural," is a phrase often used in some form. (See p. 131, this number of CHRISTIAN THOUGHT). It is very misleading and has no basis in fact. It makes "theology" as much opposed to "science" as "supernatural" to "natural;" whereas there is no more opposition to science in theology than in geology. Theology is a science and *nothing else*, just as geology is a science and *nothing else*. As sensible would it be to write "geologically supernatural as opposed to scientifically natural," which men devoted to physical science see is nonsense; but they do not see the other phrase is nonsense because they have so accustomed themselves to think of nothing as science which is not in their department.

PROFESSOR MONIER WILLIAMS, the Boden Professor of Sanskrit, presiding recently at a Bible Society meeting in Oxford, gave some of the reasons why he had come to the conclusion that our Bible is the only true Bible of God. Contrasting it with other books, he said we were not afraid of criticism. "To translate the Veda or the Koran into other languages the Hindus and Mohammedans consider simply desecration. It is the sound and intonation of the sacred Sanskrit and of the sacred Arabic which is of primary importance and primary efficacy; the sense is merely secondary. Millions and millions who know nothing of Sanskrit are obliged to hear and repeat the Veda in Sanskrit, and millions who are wholly ignorant of Arabic are obliged to hear and repeat the Koran in Arabic. Think of what would happen if no Christian in any part of the world were allowed to hear, read or repeat his Bible except in Hebrew or Greek!" Further, he found no such revelation of our nature and needs in the Veda. Again, "Sanctify this life and all its trials," says our Bible; "Get rid of the troubles of life," says the Veda. "Sanctify the body," says the Bible; "Get rid of the body," says the Veda. "Sanctify your daily work," says our Bible; "Get rid of all action," says the Veda. "Rest not on any merits of your own," says our Bible; "Rest on your own merits alone," says the Veda. "Get rid of sin," says our Bible; "Get rid of misery," says the Veda. Moreover, the historical element is wholly wanting both in the Veda and the Koran. Then note one other very remarkable feature. Progressive development marks our Bible. The light of revelation is gradually unfolded till the perfect illumination of the Epistles and the Revelation of St. John is reached. The very reverse is the case in the Veda and the Koran. In these the earliest utterances contain the greatest light, the later become darker and darker. After a lifelong study of the religious books of the Hindus, Professor Williams said he felt compelled to express publicly his opinion of them. They begin with much promise amid scintillations of truth and light, and occasional sublime thoughts from the source of all truth and light, but end in sad corruptions and lamentable impurites.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 71 Bible House, New York.]

PSYCHOLOGY, THE MOTIVE POWERS, by James McCosh, D.D., LL.D.; pp. 267; \$1.50. (Charles Scribner's Sons.) We were about to formulate our opinion of this able book when the New Princeton Review for September, 1887, came to hand. In its review of the book it gives an analysis upon which we find ourselves unable to improve, and therefore we copy it bodily. In his theory of the Emotions Dr. McCosh "rejects the neurological theory of Bain and others as inadequate, and traces emotion to a fourfold root. The primary source of emotion is the *appetence or emotive principle*, which is original in our nature, and which must be aroused before the emotion can act. Another necessary element is what the doctor calls the *idea*. The emotive principle does not move blindly, but in response to the presence of some moving object or idea. Thus, in terms of the illustration given in the opening chapter, the emotive principle of family affection excites the feeling of sorrow only when appealed to by the announcement of a brother's death. Two other elements which enter into emotion are the *organic affection or nerve excitation*, and the *conscious feeling*. Every emotion, the author claims, has these four aspects. An elaborate and interesting discussion of the four elements is followed by a classification of the emotions. Various methods of classification have been adopted by different authors. Doctor McCosh founds his classification on the ideal element, and takes as his *fundamentum divisionis* the distinction between emotions aroused, respectively, by animate and inanimate objects. The first class is subdivided into retrospective, immediate, and prospective emotions. Under the second class the æsthetic emotions are grouped. The author's treatment of æsthetics, and especially of natural beauty, is one of the most

interesting portions of his book. A glance at the remaining divisions of the volume must suffice. Doctor McCosh insists that the conscience is not a mere emotion, but contains both a cognitive and a motive element. It cognizes intuitively the distinction between right and wrong, and the moral quality of particular acts. The cognition is accompanied by a feeling of approval or reprobation, and the concrete voice of conscience includes both. Moral distinctions are given directly by conscience, and do not spring from utility, or from sensations of pleasure and pain. The will is the choosing power, and acts both spontaneously and deliberately. The author repudiates the current distinction between will and motive. An impulse or incitement becomes a motive to choice only when it has received the assent of the will. Into the dispute about freedom and necessity he declines to enter; but as every volition is accompanied with the conviction of freedom, he considers the belief in the freedom of the will well founded."

CREATION OR EVOLUTION is the title of a very valuable book by George Ticknor Curtis; pp. 564; \$1.50. (D. Appleton & Co.) Mr. Curtis is well known as a lawyer of distinction. He is no ecclesiastic and no theologian. The honors paid to the memory of Charles Darwin led him to examine the works of that writer, and subsequently those of Mr. H. Spencer. The result of that investigation and the processes he has traced in this volume. He has not written to defend the foundations of religious belief, nor has he advanced arguments in favor of any special interpretation of the Holy Scriptures. He has treated the Mosaic account of creation as he has the hypothesis of evolution or any other hypothesis which undertakes to account for the origin of animal existence on the planet. He has simply examined whatever has been presented on the subject, in accordance with the rules of evidence. We cannot trace his argument, but this is his conclusion: "The result of my study of the hypothesis of evolution is that it is an ingenious but delusive mode of accounting for the existence of either the body or the mind of man; and that it employs a kind of reasoning which no person of sound judgment would apply to anything that might affect his welfare, his happiness, his estate, or his conduct in the practical affairs of life." Students interested

in this subject owe it to themselves to read this contribution to its literature.

THE SIXTH VOLUME OF THE PEOPLE'S BIBLE, by Rev. Dr. Joseph Parker, of London, has just been issued (Funk & Wagnalls. \$1.50). It seemed so stupendous an undertaking that we feared there might be some falling off either in sharpness of exegesis or strength of homiletics; but the book seems to grow in ability as the number of volumes increases. This volume embraces the last sixteen chapters of Judges, the whole of Ruth, and the first eighteen chapters of Samuel.

FUNK & WAGNALLS have published an "Encyclopedia of Living Divines and Christian Workers of all Denominations in Europe and America, being a supplement to the Schaff-Herzog Encyclopedia of Religious Knowledge." The title of the book tells the whole story, and nothing is to be added except that the names of the editors, Rev. Dr. Schaff and Rev. S. M. Jackson, guarantee the fullness and accuracy of the work.

UNIVERSAL BELIEFS, OR THE GREAT CONSENSUS, is the title of a book published by the American Tract Society, New York, and written by the gifted author of "Ecce Cœlum," Rev. Dr. E. F. Burr, who has the sharpness of a scientist and the warmth of a poet. A common excuse for neglecting personal religion is found in what is supposed to be great difference among the Christian denominations as to their faith. Dr. Burr shows that men cannot afford to surrender *all* opinions in science, politics, art, education or religion because there are *some* debatable grounds. He goes further and shows that all the great Christian sects are agreed on certain main points of religious belief, and still further that the same is true of all the religions of all the nations of the earth. We could wish that all our readers would exert themselves to put this attractive volume into the hands of all the thoughtful readers in their circles of acquaintance.

IN every Sunday School library, for the benefit of the teachers, should be placed "A Handbook of Biblical Difficulties; or,

Reasonable Solutions of Perplexing Things in Sacred Scripture." It is an 8vo. of 568 pp., London print, republished in this country by Thomas Whittaker, Bible House, New York, price \$2.50; the editor is Rev. Robert Tuck, B. A. (Lond.). These particulars are stated, because we know that there are those who need and who desire just such a book. There are good women in Christian families who are annoyed by young male relatives, who have reached that peculiar age when it seems to them to be a grand manly thing to have the courage to find fault with "the old book," and that it shows "insight" not to touch such things as Adam's eating the apple and the whale's swallowing Jonah, but to bring forward the assassination of Eglon, an "evil spirit from God," etc., etc. It will do her good to be able to give a reasonable and convincing solution of the difficulty on the face of the text. Sometimes the quick and thorough removal of even one such objection topples over the whole edifice of a young man's infidelity. This book is an armory.

CHRIST IN LIFE, by J. L. Batchelder, is published by the author, 817 Washington Boulevard, Chicago. A unique book. Very readable. The author thinks for himself and is a master at quotation. If Emerson's saying be true, "Next to the originator of a good sentence is the first quoter of it," then Mr. Batchelder is next to many great writers. The reader can scarcely turn to a page without finding something bright by the author or something from some other author worth quoting.

NATURAL LAWS AND GOSPEL TEACHING, by Herbert W. Morris, D.D. (American Tract Society), is another assistant to the Christian who wishes to give a scientific as well as a Scriptural reason for the hope that is in him. The author examines nature's records and the Gospel narratives and points out their coincidences as to localities, vegetation, living creatures, and climate. He then shows the relation between Natural Laws and the Miracles of Christ; then Natural Laws and Answer to Prayer; then Natural Laws and the Resurrection of the dead; and, lastly, Natural Laws and the Final Conflagration. The work is capitally well done.

CHRISTIAN THOUGHT.

THE RELIGION OF HUMANITY.

[A lecture delivered before the American Institute of Christian Philosophy, at Key East, N. J., August 17, 1887, and stenographically reported for *CHRISTIAN THOUGHT* by Arthur B. Cook.]

BY LYMAN ABBOTT, D.D.,

Editor of "Christian Union."

THE great battle of the ages between spiritual religion and a purely earthly philosophy is, in its essential elements, always the same. It varies in its form, but not in its essence. The great question of the nineteenth century after Christ is, in its essential character, precisely the same as that of the first century. The question of to-day between the Christian Church and the Godless philosophy is precisely that which Paul had to meet on Mars Hill, and Christ with the Sadducees of Palestine. It is a question of philosophy, a question of theology, a question of ethics.

It is a question in philosophy. Spiritual philosophy asserts that there is an invisible and an intangible world—a world that transcends all perception by the senses; and that there is in man a power directly and immediately to perceive that world, to know it, not by deduction, not by argument, but by direct perception. This power is called, in the Bible, faith; in the Hindoo literature it is called the Yoga faculty. It is recognized by the prophet of every truly spiritual religion: Socrates, Buddha, Christ, Paul. This philosophic issue is not merely religious. It underlies art and literature as well. According to the materialistic philosophy, art and literature impute something to nature. According to the spiritual philosophy, art and literature discover something

in nature. According to the one, man speaks—the poet, the artist, the sculptor, the writer—and listens for the echo of his own voice, which comes back to him from the sea, the clouds, the river, the mountain. According to the other, he listens, and sea, river, clouds, mountains speak to him, and then he translates their voice, unheard by other ears, that other ears may hear it.

It is a question in theology. According to the spiritual religion, man directly and immediately sees God. He does not merely conclude God from certain phenomena. God is not merely a scientific hypothesis to account for the order of the creation. On the contrary, He is the most real, He is the most immediately known in all the universe. He is, in the expressive words of Faber, “Never so far as even to be near.” According to the other philosophy, God, unseen, untouched, unheard, is unknown. He is at best only an hypothesis. Under the teaching of this sensational philosophy,* we conclude, with John Stuart Mill, that there is a God, but an imperfect one, imperfect in wisdom, in knowledge, in love, and in power; or we conclude, with Huxley, that all talk of a God is mere babbling, tinkling cymbals, and sounding brass, that is, we are agnostic; or we conclude, with Professor Clifford, that there is no God: the dim and shadowy features of the Superhuman fade from our vision, and there appears instead the august figure of man; man, who, says Prof. Clifford, “made all gods, and will unmake them;” man, who, says Prof. Clifford, declares “Before Jehovah was, I am.”

This issue, which is philosophical and theological, is also ethical. In the one philosophy there are great laws of right and wrong. They are ultimate facts. The right is right, as God is God. According to the other philosophy, the ultimate facts are pain and pleasure. That is right which produces pleasure, that is wrong which produces pain. If you will excuse the familiar illustration, I can set this point before you by a simple story, and a true one. My father, sitting at the boarding-house table next a French Roman Catholic lady, remarked: “I do not know whether it is owing to religion or to race, but the French seem to have a different theory of truth from the English. According

* So called because it is based wholly on the testimony of the senses, all other testimony being regarded as unverifiable.

to the French theory, it is wrong to tell a lie if it will do harm; but according to the English theory it is wrong to tell a lie whether it will do harm or not." "No, no," said the French lady, "not at all, Mr. Abbott; I think the French are just as truthful as the English." "Oh," said my father, "I did not say that the French were not just as truthful as the English. I said that their *theory* of truth was different: that according to the French theory it was wrong to tell a lie if it would do harm, but according to the English theory it was wrong to tell a lie whether it would do harm or good." "No!" said she, "I do not think there is any difference at all in the theory. And besides, why isn't it right to tell a lie, if it will do good?"

This is the three-fold issue that confronts us in the nineteenth century. Is there an invisible world, and is there in man a power which can directly perceive it, or is all knowledge woven in the loom of threads that are gathered by the senses and handled by the reason? Is there a God that can be directly and immediately known? Does soul touch soul, spirit touch spirit? Or are there no voices that cannot be heard by the ear, no forms that cannot be seen by the eye, no throb or thrill that cannot be interpreted in the waves of the atmosphere? Are there great laws of right and wrong that are absolute, eternal, and immutable, so that men should follow them though they follow them to crucifixion, for themselves, for their wives, for their nation, for the race, for time, or even for eternity? Or is the end of life pleasure, and are we to live simply for our own happiness and the happiness of those that adjoin us? In the presence of this great issue, all other questions become, if not insignificant, at least of secondary importance. In the presence of this great issue, questions of form and ceremony, questions of creed, questions of philosophy and theology, questions of interpretation of doubtful texts of Scripture, drop into the background. Whether there is a God in nature, a soul in man, and a law of right and wrong in the universe: this is the transcendent question of the nineteenth century, as of all centuries.

Now the philosophy which I must call infidel—I do not wish to attach to it an opprobrious epithet, but I know not how else to describe it in a single word—the philosophy which we call

infidel claims our attention on two grounds. It claims, in the first place, to be pre-eminently rational and scientific, and in the second place, to be pre-eminently humanitarian. I am not going to speak of the first claim to-day, but only of the second. Is it humanitarian? This infidel philosophy, which declares that there is no invisible world, or at least no power in man to perceive that which the senses cannot perceive; this infidel philosophy, which declares that there is no God, at least none that can be known, and no great laws of right and wrong, only laws of pleasure and of pain; this infidel philosophy beckons to us and says: "I have come to emancipate you. You have been under the rule of priests and churches long enough. You have stood in awe of an imaginary God long enough. You have trembled before the fears of a dread future long enough. You have been deluded by the illusive hopes of a future long enough. I have come to set you free from the awe of God, that you may simply revere and admire man. I have come to set you free from the service of God, that you may give, in place, the service of man. I have come to take away from you the illusory dread and the equally illusory hope of the future. I am the religion of humanity." Well, I ask, then, that this morning you to look with me and see what it is that this religion of humanity offers to us. We are walking along a great highway. The cross of Christ goes before us. Thousands have preceded, and thousands are accompanying. It gives us, we know what. And voices come out to us from the right hand and from the left, saying: "Turn aside. We have found something better." I ask them, "What have you found?" And I ask them to tell us what they have found. That is all.

In this question I do not propose to bring infidel philosophy to spiritual tests. The humanitarian says to us: "You must measure my philosophy by that which it offers to do—its service to humanity." Very well, I say, we agree. We accept for the hour the immense egotism which declares that man is the supreme object of reverence and worship in the universe. We accept for the moment the philosophy which sets aside the service of God and substitutes the service of man. We accept the humanitarian standard. Is the religion of humanity or the re-

ligion of spiritual life the better servitor of man and the better preparation for earthly life? And in seeking to answer this question I shall not ask what the enemies of this philosophy say of it. I shall ask what their exponents and representatives say of it. I shall invite their own prophets upon this platform to tell you for themselves what it is they have to offer to humanity, in the name of humanity, in the place of the religion of the Old Testament and of the New Testament, in the place of the religion of all spiritual teachers, of all religions, and of all times.

In the first place, then, spiritual religion, not merely that of the Old Testament and of the New Testament, but that of all ages, and of all times, declares that man is a child of God. Paul, speaking on Mars Hill, summons, not a Jewish prophet, but a Pagan poet, to bear testimony: "We are his offspring." The writer of the book of Genesis, describing the origin of the human race, declares that into the body God breathed the breath of life. He thus expresses the same idea—man a spark struck off from the heart and soul of God. We came from Him, we return to Him again. This is the underlying postulate of all spiritual philosophy. It is expressed with great simplicity and with great graphicness also in the 3d Chapter of Luke, in the genealogy of Christ. I read only a few verses; you can supply the rest: "Jesus himself began to be about thirty years of age, being (as was supposed) the son of Joseph, which was the son of Heli, which was the son of Matthat," and so on, ending, "which was the son of Seth, which was the son of Adam, which was the son of God." This is the genealogy of spiritual philosophy. It traces humanity back through all the ages until it finds the origin of the first soul in God himself: God the great mountain, whose peaks are above the clouds and in which all the springs are gathered that feed all the rivers of humanity throughout all the ages. Let me not be misunderstood. What is man? This physical organization—these legs, this body, this beating heart, these lungs, these eyes, this brain? No! God formed the body out of the dust of the earth. He evolved that out of lower materials. How long he was in doing it, and what was the method of the procedure, the writer of Genesis does not tell us, and probably did not know. Whether it was done by some instantaneous pro-

cess, or whether by long and gradual processes from lower orders of life, is immaterial. How the ship was built is not the question. Whence came the Captain that commands it? That is the question. And spiritual philosophy declares that, whether by long process or quick process, by gradual evolution or by instantaneous creation, no matter—when, by some method of God's own workmanship, the physical organism had been built, the living inhabitant was breathed into it by the very breath of God himself. Now the philosophy which denies the invisible, the intangible, the supersensible, denies and must deny this Divine origin of the human race. It traces not merely the animal man back to animal organisms, not merely the mechanic man back to mechanic organisms; it runs the genealogy of man himself back into the very dust of the earth. I am an animal; of course I am an animal. I am a vertebrate animal, and of the order of mammalia. No one questions that. But am I anything more than an animal? Am I an animal *plus*? Is the highest compliment you can pay to any man to say, He is a perfect animal? The religion of humanity runs back the genealogy of man, with all his powers, with all his equipments, back to the dust of the earth. I hold in my hand a genealogy which I wish you to compare with the genealogy of Luke. It is not a satire, it is not an irony. I have taken it from the pages of Ernest Haeckel. It is true, I have condensed it from perhaps a dozen pages, but in that condensation I have followed precisely the line traced by the atheistic philosopher. What is omitted is simply the detailed description of the several species in the genealogy. Let me read it:

“Monera begat Amoebae, Amoebae begat Synamoebae, Synamoebae begat Ciliated Larva, Ciliated Larva begat Primeval Stomach Animals, Primeval Stomach Animals begat Gliding Worms, Gliding Worms begat Soft Worms, Soft Worms begat Sack Worms, Sack Worms begat Skull-less Animals, Skull-less Animals begat Single-nostriled Animals, Single-nostriled Animals begat Primeval Fish, Primeval Fish begat Mud Fish, Mud Fish begat Gilled Amphibians, Gilled Amphibians begat Tailed Amphibians, Tailed Amphibians begat Primeval Amniota, Primeval Amniota begat Primary Mammals, Primary Mammals begat Pouched Animals, Pouched Animals begat Semi-apes, Semi-apes begat Tailed Apes, Tailed Apes begat Man-like Apes, Man-like Apes begat Ape-like Men, Ape-like Men begat Men.”

There are the two genealogies, side by side: choose between them.

The philosophy which denies any Divine origin to man, any Divine breath ever breathed into him, denies that he possesses any Divine qualities, denies that he possesses any Divine spirit. The same philosophy which denies the power in man to perceive the invisible, having ransacked the universe and brought back the word that "the Great Companion is dead," and that out of a soulless sky there speaks no God, puts the human frame on the table, takes the scalpel and makes search for a human soul,—careful search, scrutinizing search, conscientious search, with the microscope. It can find nerves and bone and sinew and muscle, but it can find no soul. This is its answer: "We can find nerve, but no emotion; we can find heart, but no feeling; we can find muscle, but no will." And so the conclusion of this religion of humanity is that, as there is no God in the universe, so there is no spirit in the body. "What we call the operations of the mind," says Huxley, "are functions of the brain, and the materials of consciousness are products of cerebral activity. Cabanis may have made use of crude and misleading phraseology when he said that the brain secretes thought as the liver secretes bile. But the conception which that much-abused phrase embodies is, nevertheless, far more consistent with the fact than the popular notion that the mind is a metaphysical entity, seated in the head, but as independent of the brain as a telegraph operator is of his instrument." You are only an electrical machine. So long as the wheel is kept going the sparks will be generated and fly off;—and love, and hope, and aspiration, and desire, and prayer,—all these are but the sparks that fly off. All the intellectual processes of a Laplace or of a Newton are generated by the brain as the liver secretes bile. All the heroism of ten thousand battle-fields, only the products of a physical organization, or the outgrowth of a mere animal and sensual organism! No affection, no will power! "I hold," says Sir Henry Maudsley, "emotion to mean the special sensibility of the vesicular neurine to ideas." A mother's love for her child simply the tintinnabulation of a certain nervous matter! Emotion, at best, only an *Æolian* harp, fine strung and put upon the window-sill and

playing such music as the wind may evoke from it! That is all. You thought you loved. Oh no! You only had a sensibility of vesicular neurine! "Physiologically," says Sir Henry Maudsley, "we cannot choose but reject *the* will; volition we know, and will we know; but *the* will, apart from particular acts of volition or will, we cannot know."

Man without a soul, only an organism that secretes thought as the liver secretes bile; without affection, only having vesicular neurine; and without a will! I look off upon this horizon, and I see what? It is an ocean steamer ploughing its way along the waves. The fog gathers around it, and the fog cannot balk it. The great waves heap up and toss themselves upon it, and they cannot drive it back. The wind howls around it, and the wind cannot halt it, no, not for a moment. For within it there are the great engines, and a hand holds the helm, and can guide it wheresoever it will. I look again. I see another steamer lying there. It is tossed to and fro in the trough of the great sea; it is flung back and forth, dismantled, dismasted, wrecked, the waves sweeping over it, the rudder gone. The one is man as spiritual philosophy interprets him, with power within himself, with power of guidance, of self-control, of mastery, of progress; and the other, man as he is interpreted by the unspiritual philosophy, a dismantled hulk, without affection, without spirit, without will, tossed to and fro on this always tempestuous sea of life, with but one issue possible, that when the storm shall have done its work the old hulk shall sink out of sight, forever, in a grave from which there is no awakening.

As there is no Divine origin to man, and no Divine spirit within him, according to the prophets of the religion of humanity, so there are no great merits or demerits in man's action. *Ought* is a word that the religion of humanity strikes from the dictionary. Praise and blame, in all their higher senses, are stricken out. Man is but a machine, and you cannot predicate moral wickedness or moral virtue of a machine. Your watch may not keep good time, but you will not punish it. Garfield is a good machine, and we will place him upon the mantel-piece, where all the world can see him. Guiteau is a bad machine; like an unexploded bomb, he may go off and hurt some one. We will

bury him underground, where he will do no harm. But there is no praise in the one and no blame in the other. Do you say this is my deduction? Not at all. I am only asking the prophets of this philosophy to tell you themselves what it gives to you. "Were one to go around the world," says Hume, "with the intention of giving a good supper to the righteous and a sound drubbing to the wicked, he would frequently be embarrassed in his choice, and would find the merits and demerits of most men and women scarcely amount to the value of either."

Read over the pages of history and read the record of all the malice and uncharitableness and hate and wrath; of all bloody wars inspired by insane ambition and of bloodier persecutions inspired by insaner superstition. Read the whole dreadful record, and then write under it: "No one of them so much as deserved a good drubbing." Read the record of your own country for the last half century; read the story that has been written in blood with the sword unsheathed, and in green mounds on southern battle-fields; read the story of heroism, of self-sacrifice, of self-denying love, of anguish and broken hearts at home, and of wounded boys far away, and then write underneath it this: "In all this wisely, womanly, motherly love, in all this manly heroism and courage, not so much merit as to deserve a good supper!" This is not mine, it is Hume's interpretation of life. This is what the religion of humanity gives us, calling us away from the spiritual philosophy that recognizes in man a child of God, within him a Divine spirit, before him a noble future. A philosophy that declares he came from the mud-fish and the sack-worms, a philosophy that declares that his emotion is vesicular neurine and his will is nought; a philosophy that declares that over him and about him are no great laws of right and wrong, and in all he does no merit that deserves praise and no sin that deserves reprobation.

But if an individual has no will, ten individuals have no will, a thousand individuals have no will, fifty million individuals have no will. If there is no power of self-control in one, there is no power of self-control in a nation. Fifty million times nothing is still nothing. The philosophy that denies the power of self-government to the individual, because it makes him a mere machine,

denies to the community the power of self-government. The religion of humanity comes, it says, to emancipate us, and yet the advocates of the religion of humanity have never been the advocates of liberty. I say without hesitation, at all events I challenge contradiction to the statement and shall gladly make exception if the exception can be pointed to, that in the long array of heroes and of statesmen who have fought and suffered to progress human liberty, from the days of Moses to the days of Ulysses S. Grant, there is not to be found one single man who has taken up his sword, aye, or his pen, and suffered for human liberty, who has believed in this Godless philosophy. I do not forget Thomas Jefferson. I do not forget the deists and the unbelievers. Neither do I forget that it was Thomas Jefferson that said: "I tremble for my country when I reflect that God is just." The philosophy that denies a Divine origin to man, and a Divine spirit within him, is a philosophy that never has bred a hero, and scarce ever even a writer, for human liberty. I confess this last was a surprise to me when I discovered it the other day. I think it is true. I found the testimony to this fact in the pages of Lecky; and Lecky is not, as you know, a man to bear prejudiced testimony in favor of spiritual religion.

"In England," says Mr. Lecky, "Hobbes, who was the first very considerable freethinker, constructed the political philosophy which is beyond all others favorable to despotism. Bolingbroke was the most brilliant leader of the Tory party. Hume was the best exponent of the Tory view of English history, and all his sympathies were with a benevolent despotism. Gibbon as a quiet Tory member steadily supported the American policy of North; and when the French Revolution broke out his judgment of it was precisely similar to that of Burke. In France, Bayle wrote with horror of the democratic and seditious principles disseminated among French Huguenots, and there is no reason to believe that the great writers of the period of the *Encyclopædia* were animated by a different spirit. . . . Voltaire, in his theory of government was essentially monarchical. Democratic government was equally repugnant to his judgment and to his tastes. All his leanings were towards rank, and culture, and refinement; and while sincerely desiring to improve the material condition of the masses of mankind, he had very little genuine sympathy with them, and an utter disbelief in their capacities. He could not forgive Shakespeare for his close contact with common types of life and character, and for his complete disregard of the conventional elegancies and stateliness of the French stage; and his ignoble sneers at the humble origin of the Maid of Orleans, and at the poor relations of Rousseau, disclose a feeling which was expressed in innumerable passages in his confidential letters.

'We have never,' he once wrote, 'pretended to enlighten shoe-makers and servants.' 'The true public is always a minority. The rest is the vulgar. Work for the little public.' 'What the populace requires is guidance, not instruction. It is not worthy of the latter.'"

The philosophy which begins by disbelieving in God, ends by disbelieving in man. It disbelieves in his Divine origin, it disbelieves in his Divine nature, it disbelieves in his power of self-control, and therefore it necessarily disbelieves in the power of self-government wrought out in human institutions and in human life.

Over against that I set, for one moment to-day, in contrast, the religion of the spirit. I am aware that the Church has often been apostate to its own faith. I am aware that it has often violated that very principle of liberty which is fundamental in its constitution. I am aware that it has done so in the past and, alas, is doing so even in the present. I am aware that the very Church, which holds in its hands the instrument which compels men to think, also has tried to put bonds and shackles on their minds that they may not think. I do not forget the persecutions of the past; I do not forget the more subtle persecutions of the present. Nevertheless, I stand by the great historic facts. First, this: That the Bible, in every page, from Genesis to Revelation, is written all over with the resplendent light of liberty; that when Moses first called the children of Israel together and massed them at the foot of Mount Sinai, not even God Almighty would assume to be their king, until He had sent Moses down to take their vote, by universal suffrage, whether they would have Him to be their king or not; that, in the New Testament again, Christ's words to His disciples were: "Call no man master;" and Paul's: "Every man shall give account of himself to God." And along with that I put the other great fact that the history of liberty has always followed, in its successive evolutions, the history of the Christian Church. Liberty growing out of the Bible has made liberty efflorescent and fruitful in the community. It was the Protestant Reformation that was the mother of liberty in Europe and in America. In England and in Germany, where it won its battle, there liberty was triumphant. In Spain and France, where it was defeated, there liberty died the death. And

the only nation that has ever undertaken to build a temple of liberty on a Godless philosophy was the French people, with a temple that was being fired at the one end by the very men that were building it at the other.

This religion of humanity which denies a Divine origin to man, denies a Divine spirit to him, denies great laws of right and wrong, and therefore denies all great merit and demerit, denies liberty to the individual, and therefore of necessity denies liberty to the state, which has furnished no heroes and few defenders, even, of human freedom ; this religion of humanity equips man with despair. It plucks out of life its fairest flower, hope. No man can look within himself and no man can look out upon life and not see that humanity is full of aspiration and desire and outreach. Like the plant beneath the earth, it is climbing ever toward the sunlight, though it knows not what the sunlight is, nor where it shall be found. But there is no sunlight, according to this materialistic philosophy. There is only an earth, earthy ; and all the hopes and aspirations of humanity are born in men only to be disappointments, only to end in despair. We are like travelers on the great sandy desert, the sky above us burning brass, the earth beneath us burning sand ; the very wind that blows, a scorching wind from the open-mouthed furnace. Far off upon the horizon we see what ? Green trees, grass, a spring of water. We haste toward it ; when we have reached the horizon only to find that the vision has disappeared to reappear still further on ; hope always beckoning and always eluding ; man following throughout all his life a mirage, to perish in the desert at last and leave nothing but bleaching bones behind him.

“ The essence of life, according to Schopenhauer,” says Professor Bowen, “ is unsatisfied purpose, a striving to be what we are not, and to gain what we have not ; and the fruit of life is disappointment and sorrow, the end whereof is death. The only possible virtues, then, are pity—pity for all other beings who are as wretched as we are ; resignation or submission to the inevitable ills of life ; and self-abnegation or a renunciation of the will to live, which is a virtual return to Nothingness—the only heaven which Schopenhauer admits as possible.” He adds : “ These gloomy and misanthropic views of human life are held only by

skeptics, like Bayle, Hume, and Voltaire, or by open atheists, like Schopenhauer. Believers, such as Leibnitz, Barrow, Tucker, Paley and others, either preach Optimism or so great a preponderance of good over evil, even in this world, as to amply vindicate the goodness of its Creator. Be their opinion well founded or not, it certainly casts sunshine on their pathway through life, while unbelief shrouds it in sorrow and darkness. The latter is a religion, if it can be so called, of gloom, misanthropy, and despair; and no more striking illustration of this fact can be found than in the philosophy, if it deserves that name, of the atheist Schopenhauer."

The religion of humanity, which has taken away from man his sublime faith in a Divine origin, which has taken away from man his consciousness of a Divine nature, which has taken away from man his striving after merit and his endeavor to escape the condemnation of himself and others, which has taken away from man his love of liberty, takes away from him all hope, and leaves him to expect nothing for himself or his race but blighted buds and withered fruits. And so, of course, it takes away all hope in that hour when hope is most needed—in the hour of death. "If I thought," wrote Rousseau, "that I should not see her in the other life, my poor imagination would shrink from the idea of perfect bliss, which I would fain promise myself in it." On which Mr. John Morley, ablest and most courageous English apostle of the Religion of Humanity, thus comments: "To pluck so gracious a flower of hope on the edge of the sombre unechoing gulf of nothingness into which our friend has slid silently down, is a natural impulse of the sensitive soul, numbing remorse and giving a moment's relief to the hunger and thirst of a tenderness that has been robbed of its object. Yet would not men be more likely to have a deeper love for those about them, and a keener dread of filling a house with aching hearts, if they courageously realized from the beginning of their days that we have none of this perfect companionable bliss to promise ourselves in other worlds, that the black and horrible grave is indeed the end of our communion, and that we know one another no more?" Death has called you, and you stand at the edge and look down into that grave into which the body has been laid; and this is

the word which the prophet of the religion of humanity utters above it: "Earth to earth, dust to dust, ashes to ashes, but no spirit and no God that gave it." And it calls itself, while it looks on your blinding tears and your broken heart, a religion of humanity!

And this religion, which denies a Divine origin and a Divine nature, a Divine virtue, a Divinely endowed and bequeathed liberty, a Divine hope in life and a Divine hope in death, denies it all because it denies God, and all the sunshine that comes out of God, and all the hope and radiance and inspiration that comes from God.

"It cannot be doubted," says Professor Clifford, "that theistic belief is a comfort and a solace to those who hold it, and that the loss of it is a very painful loss. It cannot be doubted, at least by many of us in this generation, who either profess it now, or received it in our childhood and have parted from it since, with such searching trouble as only cradle-faiths can cause. We have seen the spring sun shine out of an empty heaven, to light up a soulless earth; we have felt with utter loneliness that the Great Companion is dead." We are in the woods. We are traveling that great highway which the Christian Church has traversed throughout all these ages, and the cross of self-sacrifice goes before us, and from it there streams a light which cheers us. It witnesses to us that we are the children of God. It witnesses to us that in us is a Divine son-ship. It witnesses to us that all the anxieties and pains and heart-searchings and out-reachings of this life are buds that promise fruit. It witnesses to us that all the pain and anguish of life is a Divinely ordained ministry to this higher nature within us. It bids us to glory in tribulations also, and puts into our lips this song: "If God be for us who can be against us; I will not fear what man can do unto me." And the voices come out from the woods on the right hand and on the left: "Come, follow us. We will show you a more excellent way. Cease to bow the knee to this awful God. Worship man. Cease to fear your future or to borrow hope from it. Live for time, live for your fellows, come, follow us." And we ask: "What have you found, that you summon us to follow you?" And Haeckel says: "I have found that you are children of mud-

fish and worms ;" and Huxley says : " I have found that your brain secretes thought as the liver secretes bile ;" and Maudsley says : " I have found that your emotions are only the special sensibility of vesicular neurine, and you have no will ;" and Hume says : " I have found that, do your best, you cannot so much as earn a good supper ;" and Hobbes and Voltaire say : " We have found that you are not free men, and never can organize a free state, and that common folks are not even worthy of instruction ;" and Schopenhauer says : " I have found that all your desires and aspirations are wrought in you only to make life more full of anguish, and the only hope is nothingness ;" and Morley says : " There is no light beyond the black and horrible grave, no companionship, no future ;" and Clifford says : " Out of the soulless sky there sounds no Divine voice, for the Great Companion is dead." " This is what we have found : Follow us, follow us."

No ! no ! we will not follow you. For you have not even anything new to offer us. You offer us only the old, old paganism ; the paganism of the old Persian poet :

" We are no other than a moving row
Of Magic Shadow-shapes that come and go
Round with this Sun-illumined Lantern held
In Midnight by the Master of the Show ;

Impotent Pieces of the Game He plays
Upon this Checker-board of Nights and Days ;
Hither and thither moves, and checks, and slays,
And one by one back in the Closet lays.

The Ball no question makes of Ayes and Noes
But Right or Left as strikes the Player goes ;
And He that toss'd you down into the Field,
He knows about it all—He knows—He knows.

The Moving Finger writes ; and, having writ,
Moves on ; nor all your Piety nor wit
Shall lure it back to cancel half a Line,
Nor all your tears wash out a Word of it.

And that inverted Bowl they call the Sky,
Where under crawling coop'd we live and die,
Lift not your hands to It for help—for it
As impotently rolls as you or I."

And this is the Religion of Humanity ! that takes the soul out of man and leaves him but an animal, and God out of the universe and puts an *It* in the place of Him !

I am speaking this morning undoubtedly to Christian believers, and it has been a little question with me whether there was any use in saying these things to you, who are not in danger of following Maudsley and Hume and Huxley and Clifford ; I would much rather have spoken to an audience of skeptics than of Christian believers. But if it be true that this soulless philosophy is filtering down into men's minds through the daily press and lectures and newspapers and magazines and common talk ; if it be true that men are holding it not indeed as an entity, as I have tried to describe it to you this morning, but in bits and fragments here and there ; if it be true that it is helping to feed the life of sensuality, of vice, of self-indulgence, of frivolity, that we see all about us ; if this be true, then, Christian men and women, I do lay it on your consciences with all the force and power I possess (would God I had more !) not to stop by the way to quarrel with your neighbor of another Church, or of your own Church, about doubtful questions in philosophy and in ceremony, but to join heart and hand, soul and strength, to teach our youth and our children, to convince our generation, that the Great Companion is not dead ; that the grave is not a black and horrible grave, but the open door to a blessed immortality ; that life is not a desert of Sahara, but full of sweet flowers of hope and joy, fed even by the raindrops that fall from our eyes ; and that man is not a child of the worm, to return to the worms again, but a son of God, in whom we live, and move, and have our being, and to whom we shall come again in the cycle of our completed life.

A STUDY ON TRICHOTOMY.

[Read before the Institute, at its Monthly Meeting,
6th October, 1887.]

BY J. G. VAN SLYKE, D.D.,

Kingston, N. Y.

BY Trichotomy, we mean a three-fold nature of man. Dichotomy affirms that man has but two natures, body and soul. It is the theory of Trichotomists that he is constituted of body, soul, and spirit. It is not a novelty of modern philosophy or theology. The discussion of this question dates from the earliest period of the Church.

The doctrine of the Trichotomy was the prevailing view previous to the Nicene Council; it was maintained by the Alexandrine school of theologians. It underlies the language of Irenæus, and Origen, and others. The first great opponent of Trichotomy was Augustine, whose great influence, percolating through the Church, has affected most Christian philosophy with prejudice. The doctrine, moreover, early became identified with the rationalism of the Gnostics, and with the heresy of the Apollinarians, with regard to the Person of Christ. Apollinarus denied Spirit, in the human sense, to our Lord, and maintained that its place was occupied by the Divine Spirit. As thus associated with a notable heresy, almost at the beginning of the history of the Christian Church, the Trichotomist view has come down to us as a branded doctrine. It has been felt to be an opportunity for the entrance of error with regard to the Person of Christ, and has therefore been opposed by both fear and prejudice. At the Reformation, the doctrine of the Trichotomy was revived. It received the sanction of Luther's endorsement. The universities began to discuss it. It did not take shape in any definite treatise, of importance, however, until Beck and Delitzsch gave the world their elaborate studies in Biblical Psychology. Since this time, it has been made the theme of various books and monographs, familiar to most Biblical students. Nearly every great name which Germany, the land of Biblical scholars, has

furnished, stands endorsed upon the doctrine of the Trichotomy. The great Lutheran body of that land adopt it almost universally. And not a few English scholars have lent it the sanction of their names. I need mention but Trench or Ellicott to indicate the character of the support to which I refer.

This allusion to its modern revival and growing prevalence, awakens the not too sanguine thought that it is destined to be the Psychology of the future. In this we but echo the conviction of eminent thinkers with whom we have discussed this question, and who feel persuaded that among the modifications which traditional theological statements require, is one which shall adjust it to a more accurate, and, as we believe, a more Biblical philosophy of human nature. In this study, space will permit us to do little more than group a few of the arguments which tend to encourage the theory of the Trichotomy in the minds of those who are already in sympathy with the doctrine. We realize that the teaching of Scripture seems to be ambiguous, and that a polemic spirit may be able to embarrass us with difficulties. Nor do we propose to occupy the position of a dogmatist, and formulate conclusions which may not be modified by further study. But we may state that what appeared uncertain or indefinite at first, seems now to encourage us more and more to believe that we are on the track of the truth. We may not be able to prove that man is Body, Soul, and Spirit; but our convictions lean toward this conclusion, as the underlying teaching of the Scriptures.

Whatever may be the Biblical philosophy of human nature, it is embodied in its narrations, and teachings, and exhortations, as Shakespeare's philosophy is embodied in the manifold phases of his tragedies and comedies. It expresses itself in hints and gleams, rather than in definite statements, and flashes suggestions upon us, which often confuse rather than enlighten.

But as hints often furnish clues to uninterpreted or unexplored mysteries, so it may not be a hopeless task to gather the scattered words of Scripture, and see what encouragement they may give to the doctrine of the Trichotomy.

I. We consider, first, the significant fact that three words are used to describe the elements of man's nature: *Soma*, *Psyche*, and

Pneuma. This is not an echo of the tripartition of Plato and the Platonizing schools. These words are used with a different meaning, and for a different purpose, in the Scriptures. The word *Pneuma* does not even occur in the Greek psychology. The Bible brings to the surface the truth that the *Pneuma* is something more than the *Nous* of Plato. The introduction of a new word, on the inspired page, implies the existence of an element in man's nature which philosophy had not discovered. It is true that the common speech of the world often exhibits a lower conception, and this is often reflected on the Divine page. The Holy Spirit, in adjusting His words to men, uses the human vernacular, and accordingly the words *Body* and *Soul* serve His purpose. But when we come upon the deeper mysteries of Christian experience, and man's closest kinship with God is described, it is significant that the words *Spirit* and *Spiritual* emerge into prominence as if they stood for a new phase or element of man's personality. Why are *three* words employed, if two suffice to describe all? Why is *Spirit*, rather than *Soul*, applied to that side of our nature by which we come into most intimate union with God?

It is only evading the question to speak of tautology, or of rhetorical amplification. Dr. Riddle (in Lange's "Romans," chap. vii. 7-25) well says, in reference to I. Thess. v. 23, that this is a hazardous method of dealing with a writer so uncommonly exact as Paul, to assume that he had no definite meaning in his mind, and of dealing with a Book which concerns itself with human salvation. Experience, he adds, has proven how largely the diffusion and acceptance of Biblical truth are dependent on correct anthropological views. If we believe that Paul chose his words wittingly, much more, if we hold them to be inspired, this passage, taken by itself, assumes that, "in the original structure of man there is something—yet remaining, *needing* and *capable of sanctification*, corresponding to the three terms, *body*, *soul*, and *spirit*." The same is implied in Heb. iv. 12."

No careful reader of I. Cor. ii, can avoid the natural conclusion that the writer regards the *Pneuma* as having some distinctive character of its own. That the mind blind to Divine things should be called *Psychical*, and the spiritually-enlightened

Pneumatical, is a clear recognition that in the writer's mind, *Psyche* and *Pneuma* have the respective values accorded them in modern Biblical psychology. Dr. Laidlaw ("Bible Doctrine of Man," page 332) remarks that the whole passage is moulded, like that in the same Epistle, xv. 42-47, upon the antithesis of *Psyche* and *Pneuma*, and both passages would be unintelligible without the assumption of that antithesis. It might be possible to reckon I. Thes. v. 23 rhetorical amplification, but Heb. iv. 12, and the two passages above named, refuse to bend to such a hypothesis.

The same view is abundantly supported by Cremer, in his "Biblico-Theological Lexicon of New Testament Greek" (last edition), an invaluable hand-book for New Testament study.

II. But there are definite meanings associated with each of these words, *Psyche* and *Pneuma*, which discriminate them as separate forms of life, or at least, as two widely-different phases of life. Here we enter the arena of confusing and wrangling discussion. Any attempt to give precise definition to *Body*, *Soul*, and *Spirit* must involve more or less of difficulty. To clear the ground, let us reject

(1) The theory maintained by a large number of eminent Biblical scholars, that the Pneuma is the communication of the Holy Spirit to the Believer, in Regeneration. This theory comes into conflict with Christian Consciousness; it moreover dispenses with the necessity for Sanctification, a work which, according to Paul, is to extend to Spirit, as well as to Soul and Body.

(2) We also reject the conception that the Pneuma is "the Spirit of God immanent in the soul," that it is an *unfallen* part of man, though suppressed and overlaid by the Soma and the Psyche.

On the other hand, we maintain that it is the Pneuma which gives most melancholy illustration to the fatal character of the Fall. In II. Cor. vii. 1, defilement is distinctly attributed to the human spirit. The teaching of Scripture, we believe, must exclude these views. But a comprehensive induction moves us to affirm the following conclusions :

The Soma is the organism in which we tabernacle, as well as that mysterious automatic organizing power which builds up and

maintains the corporeal frame. It is this Soma, as distinguished from the Sarx (flesh), which shall be the subject of Resurrection power. The Soma *uses* flesh as its material, in building up this material frame, but it *is not* flesh, any more than the mason is to be identified with the bricks which he lays into his wall. The Sarx changes, the organizing power of the Soma keeps on through all our years. We call it *vis vivendi*, or *vis medicatrix*, but these names are only the labels of a mystery.

The *Psyche* or *Soul* is the life-principle *individualized*, and associated with corporeal *form*. It is that designation of man which includes his animal nature. It is never attributed to God, or to angels, or to demons; they are "spirits." It is the broad and comprehensive word for Human Personality. Allowing Coleridge's distinction between the Understanding and the Reason, Psyche is the seat of Understanding, and exhibits phases of life which man shares in common with the brute. The Bible offers no data to interpret the brute nature to us, but its silence does not forbid us to believe that the animal possesses in greater or less degree a psychical nature. Some measure of soul the animal has, illustrated in his intelligence and memory, and in his emotions of fear, or anger, or affection. It is this same nature larger in degree, but not other in kind, which constitutes the Psyche or Soul in man. That Psyche is sometimes used interchangeably with Pneuma in describing man's future and higher life, is not denied; that the one as well as the other is the subject of renewal under the Gospel, is also owned (see Mead, *in loco*. "The Soul Here and Hereafter").

But when Psyche is used in such ways, it seems to describe man in his total personality; in popular speech men are "souls," and since Soul is a broader term than Spirit, and includes the whole of man's spiritual and rational powers, Scripture adopts this conception as the vehicle of its teachings. Thus, where our Lord speaks (Matt. x. 28) of the destruction of "both body and soul in hell," He adopts the familiar and prevailing mode of speech. It was simply the concrete and popular way of describing Man.

In short, as Mead well says, "*Psyche* is more comprehensive

than *Pneuma*. The *Psyche* is the *Person* composed of spirit and body. Just as in our own language, we use the word 'person,' or the personal pronouns, variously, sometimes referring to the spiritual part, at other times to the physical, so it is with the New Testament *Psyche*."

But how is the *Pneuma*, or Spirit, to be distinguished from the *Psyche*, or Soul? It is the capacity by which we may know God, and come into relations with Him; the susceptibility by which we may receive the Holy Ghost. According to Justin Martyr, the Spirit resides in the soul-house, as the soul resides in the body-house. Or as Delitzsch puts it, "the Spirit is the internal of the soul, the soul is the external of the Spirit." In the language of Ellicott, "the Spirit is the shrine of the Holy Ghost; the soul may be regarded more as the region of the feelings, affections and impulses, of all that peculiarly individualizes and personifies." Not materially different, is the representation of Auberlen; "Body, Soul, and Spirit are nothing else than the real basis of the three ideal elements of man's being, world-consciousness, self-consciousness, and God-consciousness."

Spirit therefore, as distinguished from Soul, seems to be invested with an ethical quality. It is the capacity by which we may apprehend and reflect God.

It is through the action of Spirit, that we recognize Righteousness and Duty, that we are prompted to prayer and aspiration, that we send out thoughts that "wander through eternity."

Paul declares that "the natural man receiveth not the things of the Spirit of God; for they are foolishness unto him; neither can he know them, for they are spiritually discerned." The distinction which is here implied between the natural man and the spiritual, furnishes us our clue to the inspired teaching. The word translated "*natural*" here, is a derivative of *Psyche*. The "soul" is "natural." So that we may translate, "the Soulish man receiveth not the things of the Spirit of God." (See Trench, "Synonyms of the New Testament," pages 106-111.)

The Spirit then, and not the Soul is the capacity for apprehension of Divine things.

As the ear is the organ for hearing, and the eye for seeing, so

the Spirit, as distinguished from the Soul, is the faculty by which we may know God. It is only by this faculty of God-consciousness, that we have the inward witness that we are really His children.

It is impossible to dogmatize where these two terms so often overlap each other, but we cannot resist the impression that when the Scripture uses words, as *Spirit* and *Spiritual*, to describe a life which cannot be credited to the Psychical man, there must be a *Pneuma*, a separate faculty, as its ground.

It cannot be denied that there are passages in which these words, Soul and Spirit, appear to be used as equivalent terms. But in such cases, a fair exegesis will relieve us of most of our embarrassment. The passage, in Eccles. iii. 19-21, for instance, does not attribute a *spirit* to the beast. The main point of the Preacher's inquiry is in relation to the unsounded mystery of Death. This universal phenomenon baffles and oppresses him; and his question is, what becomes of this life, which Death seems to quench in man and beast? It is the antithesis of poetical ardor.

This distinction between Soul and Spirit, does not attribute to man two distinct inner natures. Yet they represent two such distinct phases or qualities of our life, that we may conceive of them as separable forms of our being. The truth is substantially expressed by saying that Spirit is a *nature* or *quality* of Soul. Spirit imparts to Soul an immortal property, the element of everlastingness. And it is through the Spirit, as the mediating susceptibility between God and Man, that the Holy Ghost communicates Himself to our whole being. The Spirit therefore is not so much a third element in man's nature, as it is a quality or property with which man's soul is endowed. It is a form of life woven into the texture of the soul, "from within and above," as Beck expresses it, even as the Body "from without and beneath."

This quality so distinguishes us from the brute, that we may be regarded as having a separate nature. The spirit saves the soul from perishableness. It permeates the intelligent soul, and constitutes it an immortal soul. By it, we are kin with God. It lends moral direction to intellect, sensibilities, and will.

It is manifestly impossible, in a brief paper like this, to discuss

all the various Scriptural uses of these two words, Soul and Spirit, which might lend helpful side-light to this subject. We can only state the results of study in this meagre outline of the doctrine of the Trichotomy, which seems to us, not only to embody the teachings of Scripture, but also to avoid some of those crude representations found in some recent writers.

The practical applications of this theory of Man's three-fold nature, as lending an apparent solution to some problems in philosophy and theology, invest it with some presumptions in its favor. It commends itself to us, first, by the support which it gives to the truth of human Immortality.

We realize that to-day, under the developments of modern science and philosophy, this doctrine is in serious question. Aside from the supports which Revelation or religious consciousness may bring to this truth, philosophy appears to be adducing almost as many arguments against the doctrine, as for it. We are familiar with the conclusions of Materialism. That affirmation, which formerly had little else to support it than a malicious antagonism to Christian Revelation, seems, if we are to yield respect to many strong and careful thinkers, now at last to rest on the basis of a calm scientific analysis. Death, the dissolution of organism, carries with it the simple extinction of life. We melt away "into the infinite azure of the past."

The difficulty of believing in Immortality is still further complicated by the widely-extending sway of the Development hypothesis, which has received its name and initial impulse from Charles Darwin.

A strong English thinker has recently said that "the most alarming consequence that seemed to follow from the doctrine of the development of species, was that, whatever large hopes might be based upon it, for the future of the Race, no other future could reasonably be hoped for, or believed in, for the individual man, than may be expected for the lower animals. The fact that man's future destiny appeared to be involved, seems one chief cause of opposition toward the Development theory. If we could not affirm the immortality of brutes, the abandonment of the theory of special creation would, it has been supposed, take away all ground for affirming the immortality of Man. This

argument appears to have had great weight for the minds of some, whose appreciation of scientific reasonings have disposed them to accept the doctrine of development while clinging to the belief in immortality. They have not shrunk from taking the only course open to them. They have boldly affirmed the immortality of brutes."

In the customary arguments for Man's immortality, there is nothing to embarrass such a position. It was long ago said by Dr. Chalmers that Bishop Butler's arguments logically proved the immortality of the horse or dog, quite as much as that of man. The difficulties in the way of believing in a future life for the animal or brute creation, it has been justly said, are enormous. At first sight, if we think only of the intelligent and affectionate companions of man, the difficulties do not appear so startling. But where is the line to be drawn? The principle must embrace all animal life, from the highest to the lowest forms of the animated creation. Few will be willing to adopt such an embarrassing solution of the problem. But the doctrine of the Trichotomy opens to us a way out of the difficulty. Without venturing to dogmatize as to the Divine purposes, in regard to the animal creation at large, we feel strongly that the argument for the immortality of man rests upon a totally distinct footing from any that may be urged in behalf of the animals below him. Instead of being based upon that which man shares in common with the animals, its strength ought to be derived from such nature or endowment as distinguishes man from the brute. Such nature we find in Spirit, which imparts to the Soul an imperishable quality. Spirit eternalizes Soul,—renders it immortal. In proportion as we live by Psyche or Soul alone, we have no assured sense of immortality. We believe in it only as the outcome of an argument. But when Pneuma or Spirit is quickened or invigorated under the action of the Holy Ghost,

"We feel through all our earthly dress
Bright shoots of everlastingness."

The life to come reveals itself to the spiritual man, as part of his essential being.

In this connection, it may be interesting to note, in passing,

how commonly, in Scripture, the future life is described in terms of Spirit, rather than of Soul. It is at least significant that it was his "Spirit" that our Saviour commended into the hands of God. The dying Stephen said, "Lord Jesus, receive my Spirit." No angel or devil is described as a Soul. They are "Spirits." It is the "spirits of just men" that are "made perfect."

In drawing a distinction between man and the lower animals, we do not find ourselves placed in necessary antagonism to the doctrine of the Development of Species. The data for the establishment of this doctrine are conspicuously inadequate; yet should it at length become the proven and accepted conclusion of Science, the truth of man's three-fold nature relieves us from that embarrassment of thought which would identify man's character and fate with those of the lower animal creation.

Many theistic evolutionists hold that the supposed creature, which a large consensus of scholarship regards as much more real than a dubious phantom of the scientific imagination, and which existed on the earth a long time anterior to the era of the Biblical Genesis, "was not genuinely human, but only the anthropoid evolutionary highest term of the animal series, before God had imparted the distinctively spiritual nature." On the evolved organism, God grafted, so to speak, the Spirit, and forthwith the pre-Adamite creature became the Adam of Genesis. Instead of immediately, God may be supposed to have formed the Adamic man, *mediately*, out of the dust of the ground, working up animal life from the Ascidian to the anthropoid ape. Each lower range of life furnished a basis on which He might erect a higher. (See Mark Hopkins' "Outline Study of Man," page 20.) The Ape did not develop into Man; but it is conceivable that he may have furnished a physical structure of such perfection of organization, that God could use it as a condition upon which to erect His highest creature, Man. The Former of our bodies, and Father of our spirits, may have worked up organized life toward its highest form, and then after modifying it by those characteristics which should render it congruous to a larger and better destiny, He crowned the long process of development with the creation or impartation of Spirit. In this way, all that is claimed as to the connections between man and the lower

animals might be yielded to the advocates of the Evolution theory, while it would still remain true that man was separated from the lower animals by a chasm which is impassable.

The doctrine of the Trichotomy furnishes also an obvious escape from the dreary conclusions of Materialism, which have done so much to affect our faith in Immortality. For if thought, feeling, energy, be but the vibration of molecules of matter, we can still retreat to the inner shrine of man's being, his spirit,—and feel ourselves in the presence of facts of consciousness, quite independent of corporeal condition or action.

On the theory of the Dichotomy, it cannot well be demonstrated that the phenomena of mental action are not dependent on the activities, *inter se*, of molecules of matter. Physiology establishes a presumption in favor of this materialistic position, and most physiologists, accordingly, are found here. When we pass to the interior life of the Spirit, we leave to the physiologist or the materialist, that which quite satisfies his postulates, while we find phenomena for which no Matter would presume to account. Matter may exhibit its credentials in the realm of mental action, but it has none to offer in that deeper experience of moral or spiritual phenomena.

The theory of the Trichotomy has been employed to modify, or at least interpret, the doctrines of *Original Sin* and of *Regeneration*, in a way which demands some notice in this paper.

It greatly simplifies the doctrine of the Fall of Man, if we conceive of it as the deadening of the Pneuma. Sin touched the third element of man's nature with a fatal paralysis. Spirit, the faculty by which man communed with God, and sustained conscious relations to Him, sank into torpor and insensibility. Man fell away from God. The Fall only indirectly affected the Body and the Soul: these parts of man's being assert their life in man's mastery of the globe. Certainly, the human intellect has not been seriously paralyzed. But the poison of sin spread a fatal numbness over the spirit. Blindness came over the spiritual eye, deafness upon the spiritual ear, and numbness upon every moral purpose or aspiration. Such was the condition of the Adamic man after the Fall. And as like produces like, we each come

into the world, possessed of exactly those qualities and capacities which our parents were able to transmit.

The Race makes endless advances in knowledge, but in moral potentiality, it remains at a stand-still. Spirit cannot keep pace with Soul.

The natural objection to this explanation of the doctrine of Original Sin, arises from our apparent evasion of the word Death, as descriptive of what Sin has done to our natures. Man is said to be "dead in trespasses and sins." But it has been justly said that he is not dead as to his sense-consciousness, nor as to his self-consciousness; his death lies in his falling apart from God, who is the true life of Man. He is dead God-ward—God-consciousness is extinct. His relations to the Infinite Spirit are broken. It is not therefore Death absolute, but relative. Were his condition one of pravity, by which we mean the *extinction* of the Pneuma, man would be only a highly-organized animal. But how then should we account for such unnatural sins as the animal is never guilty of? His rank and outrageous wickedness would remain unexplained.

According to the eloquent language of Bushnell, the very ruins of human nature illustrate its dignity.

We therefore maintain that the Pneuma is in a condition, not of Death, but of *Perversion*; and we regard this as in genuine harmony with the teaching of Scripture. It is indeed dead God-ward; but there are manifestations of Spirit, which plainly indicate some measure of life, but life blind, unregulated, and impotent. Were the Pneuma wholly obliterated, regeneration would be impossible. There would be no susceptibility to which an appeal could be made. Men would be incapable of redemption, or restoration, simply because there would be no capacity to respond to the action of the Divine Spirit.

There is a conception of the human Conscience which lends support to this view, and which, in our judgment, is in harmony with the facts of consciousness. We adopt the statement which calls the Conscience the remains of the fallen Pneuma. The old story of Enceladus under *Ætna*, moving uneasily in throes of distress, is the allegory which best illustrates the action of Conscience in human life. Conscience is evidently the action of a

morbid nature, and its chief manifestation is under the form of moral pain. It hurts most in the case of those who most transgress against the laws of righteousness.

But disease, beyond a certain point, induces *mortification*. Then pain ceases. Conscience no longer acts. The man, by a course of determined sin, has carried his moral disease beyond the fatal point. He has rendered himself incapable of all spiritual feeling; then he is beyond the reach of all heavenly influence. This, as I conceive, furnishes us with a rational interpretation of the Sin against the Holy Ghost. That spiritual side of his being, by which the man might have reflected Heaven, has been so utterly seared by his sin, that he has rendered himself insusceptible to all Divine influence. The Pneuma, as a principle of mere existence, is not destroyed; this imparts to man a doom of perpetuity; but its susceptibility to the power of the Holy Ghost is hopelessly obliterated. The man is in a state of excision from God; but he perdures forever.

It follows from our view of Original Sin, that Regeneration is the quickening of the Pneuma. And Sanctification is the expanding and intensifying of that which dates its primal impulse from Regeneration.

The quickening of the Pneuma, in Regeneration, is directly due to the incubation of the Divine Spirit. It begins to respond to God and reflect His life.

It develops and grows to be a vigorous life. It soon asserts itself as the master-principle, controlling and subordinating all things to its rule, and using our members as instruments of righteousness unto God.

The gradual character of Sanctification, and the conflict implied in it, thus explains itself. It is the development of that which was begun at Conversion. The Pneumatical life, then quickened, grows and asserts itself, by assuming its rightful mastery over Psyche and Soma, until the true order and harmony of man's constitution, Spirit, Soul, and Body, overturned by the Fall, is completely restored.

This is not a moral culture theory, or development theory of Religion, in disguise. On the contrary, it conditions all the movements and growth of our spiritual being, on the direct and

sustained action of the Holy Ghost. It conforms to the familiar action of the laws of our own nature, but it is also supernatural.

One other objection, in conclusion, needs to be noticed. It is urged that, according to this Tripartite view of Man, the effect of the Fall is restricted to certain elements or faculties, which limits to a corresponding extent the grandeur of Regeneration. We need to be on our guard against any such error. The deadening of the Pneuma in the Fall is damage not simply to this part of our nature, though the damage is most radical and most apparent here. All the other elements are indirectly affected, just as the wheels and hands of a watch are affected when the mainspring has lost its elasticity.

Moreover, as the Pneuma is the distinguishing element of our Personality, making us *Persons*, which animals never are, constituting us *Man* in distinction from them, the impairing of the Pneuma is the fall of *Man*, in his total character as Man. And consequently, Regeneration is the restoration of the Man, in the unity of his personality.

This brings us into agreement with the language of the Bible, which describes the Fall as something affecting the whole man, and not any one section of his nature. The totality of his being is impaired when that which constitutes him a Person is impaired —when the Pneuma no longer regulates, guides, or controls. And when he is renewed unto life, it is the Man that is restored, the Son of God, “renewed in righteousness and true holiness, after the image of Him that created him.”

Whatever may be our Philosophy of Human Nature, all will agree that the highest form of experience which we can know upon earth, is to “live in the Spirit” and “walk in the Spirit.”

In hours when we break above our present environment, and feel the “powers of the world to come,” and have fellowship with Christ, in the kinships and intimacies of a perfect friendship, we are conscious of entering a realm where Intellect alone could not bear us.

If we have realized in any measure what it is to be “partakers of the Divine Nature,” it is only as the human spirit has

appropriated and assimilated the Divine Spirit. If we have anticipated at all, the Beatitudes of Heaven, and shall experience them hereafter, in fuller measure, it is only as we have been, and shall be, "changed into the same image, from glory to glory, by the Lord, the Spirit."

MANY of the distinguished pioneers of science belonged to the Church, or were educated in it. Among the alchemists, the fore-runners of our chemists, Roger Bacon, Thomas Aquinas, Albertus Magnus, Raymond Lully, were ecclesiastics. Giordano Bruno, in his early life, was a Dominican priest; Gasendi and Copernicus held Church offices, the former that of professor of theology, and afterwards *prévôt* of a Cathedral, and the latter a canonry and archdeaconship, and both remained faithful churchmen throughout their lives. Kepler was educated at the school of the monastery of Maulbron, and Boerhave studied at Leyden for the sacred profession. This list, which a little research would easily enlarge, shows that, if there was a current in the Church antagonistic to scientific investigations, there was also a current that sympathized with it and impelled it onward.—*Bixby. Pop. Science Monthly, October, 1876.*

AN INTRODUCTION TO THE STUDY OF COMPARATIVE RELIGION.

[Read in the New York University as the opening lecture of Dr. Ellinwood's Graduate Course.]

BY FRANK F. ELLINWOOD, D.D.

THE more formidable assailments that are made against the supremacy of the Christian Revelation in our day, proceed along three principal lines:

- (1) Scientific investigation of Nature's facts and laws.
- (2) Biblical criticism and chronological comparison.
- (3) Comparative Religion.

Scientific Skepticism claims to overthrow the authority of Inspiration by establishing the impossibility of all supernaturalism. It knows no religion or philosophy but that of facts. Whatever is beyond the demonstrable it rejects.

Biblical criticism adopts quite another method. It does not sweep away: it undermines. It is like the white ant among the Sacred Books: it eats through the substance of the *Record*. It hunts for contradictions, discredits authorship, questions chronology.

Still different is the warfare in the field of Comparative Religion. Christianity is allowed an honorable place in the Pantheon of the ethnic faiths. Its records are acknowledged to have been inspired, as all great works of genius are inspired. Its prophets and apostles were by common consent, men of insight above the common ranks of men, and the Great Teacher of Nazareth is admitted to have been in some respects even superior to Gautama or Manu. Christ and Confucius both prescribed the Golden Rule it is said, and Moses and Gautama both promulgated codes of moral law. In Christ was fulfilled the ultimate promise made to Isaac, and in Mohammed was realized the promise made to Ishmael.

Some of the Books of the Old Testament are admitted to be very ancient, but the Rig Veda is declared to be older, and it is easy in that view to assume that in all points of similarity, the

doctrines of Christianity have borrowed more or less from the old religions which they seek to overthrow.

The savants who parade the religions of the East as rivals of the Christian faith are sometimes a little exultant. They claim to have led the advance in the study of Comparative Religions, and in this there is a measure of truth. We have too readily assumed that a knowledge of Brahmanism or Buddhism was about as useless an attainment as busy men of this nineteenth century could possess. An Oxford graduate tells us that he was remonstrated with for wasting his time upon such studies. The elaborate heathen philosophies of the East have been conceived of variously as the extremes of puerility, or as the inventions of the devil, and therefore devoid of truth and noble sentiment. And, of course, with such misapprehension on our part, the enemy has found our defenses rather weak.

Men who had themselves been at first surprised at what they discovered, came to be enthusiastic, and then indignant at the sweeping condemnation which the Christian world had pronounced upon the rival systems, and they finally became avowed champions of Oriental philosophy and belief.

It is easy to detect in some of the apologies which have been written a somewhat retaliatory spirit, as if defending a client against a supposed injustice. And not unlikely such apologies have sometimes succeeded in producing a certain degree of popular reaction.

Yet possibly a useful service has been rendered in awakening the attention of Christendom to this subject, and increasing the researches of Christian scholars in the field of Sanscrit and Pali literature. And it is to be hoped that the movement will not subside until all intelligent men shall know just what are the merits and demerits of the old faiths.

The Modern Christian Church might profit in this respect by the example of the Apostolic Church. In its time also, there were elaborate heathen systems, and the chosen apostle to the Gentiles, chosen in part it may be for this very reason, had mastered the false philosophies of that day. He could conciliate the learned heathen of Greece by quoting their own poets in favor of his positions, and he knew how to impress the polytheists of

Athens by revealing the Unknown God to whom their nameless altar had been reared.

The Christian faith has nothing to fear from the rivalries of contemporary heathenism when once fairly apprehended, and it can afford to be thoroughly candid in considering its alleged merits. Monier Williams tells us that he was at first surprised and a little troubled, but that in the end he found very little that was worthy of comparison with the Christian Revelation.

No mythologies are more fascinating,—no philosophies more subtle or profound, than those of Greece and Rome. But we *know them*, and their heathen classics are welcomed as essential to a finished education.

No one would now think of presenting the religions of the Roman Pantheon as rivals of Christianity, for we have seen their fruits in the destruction of the civilizations, and the very races, which they represented.

What is needed is the same thorough knowledge of the religious systems of our own day. If the dead mythologies claim our attention, much more do these; these are not dead, they are not even vanquished. We shall continually hear from them. We shall encounter them in the issues of the secular press and particularly the Sunday press, that new and open forum for the discussion of whatever pertains to the religions and the philosophies of mankind. The enemies of Christianity will make the most of the so-called rival systems. Adventurers in literature will gather from them the materials for poetry and fiction, and with a free poetic license in their favor.

English educated Hindus like Joshee will continue to persuade the ignorant that Hinduism is wholly pure and noble, and that the accounts given of Indian infanticide and the Suttee are only “the lies of missionaries.” And an occasional Chinaman who has lost his own faith and gained no other, will assure us that the ethics of the Celestial Empire are superior to those of our so-called Christian Republic.

Natives of all Eastern lands are not only studying our faith, but they are studying their own as they have not done for ages before. Their oracles had become a dead letter. Their ignorant and inert priesthoods had been content to chant the formularies

of an unknown tongue and an unknown faith. Their creeds had become mildewed and barnacled with popular superstitions, until European scholarship sifted their old literatures and revived their dead philosophies. Now, graduates of Calcutta University are becoming their active apologists. Now the Buddhist priesthood of Japan are sending men to Oxford to study Sanscrit and the Asiatic religions. And they are not left to their own resources merely. All the supposed weak points of Christianity, and the favorable points of their own systems are furnished ready to their hand by the learned skepticism of Germany and Great Britain, while the shallow arguments of the scoffer are supplied in cheap editions from this country.

The future cannot be as the past. That very enlightenment and quickening which missionary effort carries into the wide-spread mission fields will render the antagonisms of the beleaguered systems stronger and more aggressive, and while that enlightenment will in the end reveal the immense superiority of our faith and our civilization, it will be only when the issue shall have been clearly understood on both sides, and when the conflict shall have been fought out against all and the best that heathenism can present.

Of course these considerations are of first importance to missionaries in Oriental lands.

When a distinguished scholar was announced to speak at the Anniversary meeting of the Church Missionary Society of London, in May last, an old missionary begged of him to insist that all who were sent to the mission fields should study the false systems which they were expected to encounter; and this request he fulfilled in earnest terms.

Rev. K. C. Chatterjee emphasized the same recommendation in his address before a recent session of the Presbyterian Church. As a born high caste Brahmin and as a converted and ordained Christian minister of great experience and observation, he was qualified to judge of the importance of this subject as few men can do.

But we maintain that not only missionaries but all leaders of public religious thought should be familiar with the false philosophies which confront the Christian faith in this age of intel-

lectual activity. And if the rank and file of our Christian communities would stand firm against every wind of doctrine, a real knowledge of the relative superiority of their faith will be their surest defense.

If I have spoken thus far mainly from a defensive stand-point, let me now advance to a higher ground.

I earnestly believe that in a full and exhaustive comparison with false systems, the Christian faith will find most effective weapons for aggressive conquest. It is in this belief, strengthened by all my investigations thus far, that I find my chief incentive to the special work which I have undertaken. It is along this line that I believe a great good can be accomplished.

There is also a strong motive in the simple love for truth and justice. Let us know and admit the facts, even though some old and narrow prejudices should be overthrown. We are Divinely exhorted to give heed to whatsoever things are true, and honest, and pure, and lovely, and of good report, and if there be any virtue anywhere to ponder it well.

A striking feature of the whole New Testament narrative is its fairness toward those who did not belong to the household of faith. It was a good Samaritan that Jesus presented as his model of neighborly love, and several Roman centurions, some of whom had not received Christ, were commended for noble and manly virtues.

In the New Testament record it is only the Pharisees who hesitate to admit the truth lest some unwelcome consequence might follow their admission. Let us in the spirit of our own Great Teacher welcome the best that the sacred books of the East can present.

Meanwhile, if a study of their contents shall reveal the fact that their noblest precepts are but relics of the truth once given to all mankind, but from which heathen nations have apostatized—if we find that the whole historic trend of the Oriental faiths has been and still is ever downward, the contrast will only strengthen the claims of the Christian faith—that faith which, taking the barbarous tribes of Europe in their rudest state, has led them to the very front of the world's advancement.

“It appears to me high time,” says Sir Monier Williams,

"that all thoughtful Christians should reconsider their position. The ground is now being rapidly cleared for a fair and impartial study of the writings of Eastern nations. The sacred books of the three great religions opposed to Christianity,—Brahmanism, Buddhism, and Islam,—are at length accessible to all, and Christians can no longer neglect the study of their contents. All the inhabitants of the world are being rapidly drawn together by increased facilities of communication, and St. Paul's grand saying that God has made of one blood all nations of men is being brought home to us more forcibly every day."

And farther on the same author adds: "May it not be maintained that the traces of the original truth imparted to mankind should be diligently sought for in every religious system, however corrupt, so that when any fragment of the original rock is discovered it may at once be converted into a fulcrum for the upheaving of the whole mass of surrounding error? At all events it may reasonably be conceded that if nothing true or sound can be shown to underlie the rotten tissue of decaying religious systems, the truth of Christianity may at least in this manner be more clearly exhibited, and its value by contrast made more conspicuous."

Proceeding along the lines thus indicated by this high authority, and holding before us the question how far do these decaying systems give evidence of that primitive knowledge which God imparted to mankind, we find our hypothesis in the very outset to accord precisely with the teachings of Inspiration. The assumption upon which the Old and New Testaments proceed, is that all the family of mankind have once known the worship of the one Jehovah, but that the Gentile nations by apostasy have put away, obscured, and lost that knowledge. Paul's Epistle to the Romans declares that they "changed the truth of God into a lie, and worshipped and served the creature rather than the Creator, who is blessed forever." "They changed the glory of the incorruptible God for an image of corruptible men and of birds, and of four-footed beasts and creeping things." And with this downward plunge in the objects of their devotion, there came a corresponding demoralization. Yet Paul asserts that there are still traces of God's law written upon the hearts of such

men, their consciences excusing or else accusing one another. Such is the Apostle's diagnosis of the moral disease of the Gentile world—such his theory of all lapses into false religions, and the whole tenor of the Scriptures from beginning to end sustains his view. In this particular discussion these citations are given, not as proofs against heathen systems, but as hypotheses to be verified by comparison with their own records.

Now, as we turn to the history and the literature of the various Asiatic religions do they bear out this theory? If they do, a very important point is gained; nay, several points are gained.

(1) We have a remarkable verification of the doctrine of Christianity concerning the moral condition of mankind.

(2) We have an all-sufficient explanation for the conceded fact that here and there, mixed with puerile and debasing superstitions, many noble precepts appear.

(3) We have a clear refutation of the theory that the religions of the world have grown by a law of development, and that all the Oriental faiths from fetishism up to Buddhism are successive stages leading up to Christianity.

(4) If such traces of primeval monotheism are found, they will furnish important vantage grounds for the work of the missionary.

In pointing out evidences of a primitive faith, I shall not now discuss the comparative antiquity of sacred books. Whether the Vedic hymns were written earlier than the Pentateuch or not, the essential point is that the Old and New Testament Scriptures profess to record the faith which had been revealed to man even from the creation of the race. The religion of Adam and Seth, of Enoch and Noah, and the cultus represented in the ancient Book of Job certainly antedate any written system of law or belief.

Nor have we anything to do, in this discussion, with the question of Man's Origin. Whether he was created in the image of God, or first of all in the image of a mollusk,—whether the cradle of the race was in Mesopotamia or within the Arctic Circle, whether man has been upon the earth six thousand, or a million of years, the simple question is, has man, as we find him,

—have *all* men once known the true God? and do their sacred books afford traces of that fact?

Mohammedanism, as all admit, has borrowed everything worthy of consideration from Judaism and Christianity, and it still retains the Old Testament Monotheism under another name.

Buddhism was an offshoot from Brahmanism, and did not appear till about the sixth century B.C. Our inquiry, then, is narrowed down to Brahmanism and the Chinese systems of Confucius and Laotze. Do these show evidences of the primeval faith?

It is agreed by nearly all learned authorities that the Rig Veda bears internal evidence of a declining Monotheism which all branches of the great Aryan family appear to have held in common. It was already in transition and had become dim and vague when the Indo-Aryans crossed the Indus. It was a worship of the generic conception of heaven or nature rather than of a personal God; but it had not yet degenerated into polytheism.

“There is,” says Max Muller, “a monotheism which precedes the polytheism in the Veda, and even in the invocation of their innumerable gods, the remembrance of *a* God, *one* and infinite, breaks through the mist of an idolatrous phraseology, like the blue sky that is hidden by passing clouds.” Sir Monier Williams also states that “there are traces in the Veda of a persistent faith more or less monotheistic in its nature, though this unity soon diverges into ramifications.”

One of the passages which he translates as favoring an early Monotheism is found in the 129th hymn of the Xth Book, and is as follows:

“In the beginning there was neither naught nor aught.
 Then there was neither atmosphere nor sky above.
 What then enshrouded all this teeming universe?
 In the receptacle of what was it contained?
 Was it enveloped in the gulf profound of water?
 Then was neither death nor immortality.
 Then was neither day, nor night, nor light, nor darkness,
 Only the *Existent One* breathed calmly, self-contained.
 Naught else but He there was, naught else above, beyond.
 Then first came darkness hid in darkness, gloom in gloom,

Next all was water, chaos indiscrete,
In which the *One* lay void, shrouded in nothingness.
Then turning inwards, He by self developed force
Of inner fervor and intense abstraction grew."

How strikingly do these descriptions of a primal chaos in which there was neither atmosphere nor firmament, nor a division of night and day, but only a waste of waters over whose vast desolations there brooded the One Creative Spirit, how strikingly do they remind us of the opening verses of the Mosaic account of Creation! And they are the more remarkable in the fact that they are utterly at variance with the present cosmogonies of Hinduism or any other heathen system.

There is another passage in the 121st hymn which is not only monotheistic, but which bears a strange resemblance to the opening words of the 1st chapter of St. John's Gospel. Literally translated, it reads as follows:

"In the beginning there arose the Golden Child: He was the one born Lord of all that is: He established this earth and this sky." Or, as Sir Monier Williams renders the passage more fully in verse, it reads:

"Him let us praise, the Golden Child that rose
In the beginning, who was born the Lord.
The one sole Lord of all that is—who made
The Earth and formed the sky,—who giveth life,
Who giveth strength, whose bidding gods revere."

The expression, "*the one born Lord*," is certainly not without resemblance to that peculiar New Testament phrase, "*the only begotten Son*." And the likeness is rendered the more striking by the fact that in each case the mysterious person so named is said to have been the creator of the universe.

We would not push such resemblances too far, but we submit the question whether these strange texts may not indicate the faint images or reminiscences of truths long since lost.

There are similar traces, dim and strange, of a sacrificial system not unlike that of righteous Abel. Sacrificial rites have been common enough among all nations, and doubtless they all sprang from a common source. But for the most part they have been the sacrifices of Cain. They have been mere bargains

with deity, or they have striven to appease the wrath of the vengeful powers of whom the superstitious were afraid. They have had no spiritual import. On the contrary, as has been shown by Professor Banerjea, a learned Christian Brahman of Calcutta, these Vedic sacrifices had this peculiar significance, that "*the sacrificer was identified with the victim*" as the vicarious ransom for his sin. "Sacrifice was made the instrument by which sin and death were annulled and abolished."

Dr. Banerjea (using the present tense) explains this by saying that "the sacrificer kills on the day previous to the Soma festival, an animal devoted to Agni Soma, thus redeeming himself from the obligation to be sacrificed. He then brings his Soma sacrifice after having thus redeemed himself, and he becomes free."

But still more striking are certain passages in the Parusha Sukta of the Rig Veda, which represent the gods as sacrificing Parusha, *the primal male*, or as elsewhere expressed, *the born Lord*, "supposed to be coeval with the Creator of the Universe." He is said to have filled the universe and to have been its author, and yet he became a victim. Other hymns speak of the sacrifice as voluntary. Thus "the lord of creatures," as he is called, is spoken of as the *Atmada* or "the giver of self," *whose death is immortality to us.*"

"Surely," says Monier Williams, "in these mystical allusions to the sacrifice of a representative man, we may perceive traces of the original institution of sacrifice as a Divinely appointed ordinance, typical of the one great voluntary sacrifice of the Son of God for the sins of the world." And Dr. Banerjea, reaching the same conclusion, says, "It is not easy to account for the genesis of these ideas in the Veda, of one born in the beginning lord of the creation, offering himself a sacrifice for the benefit of deified mortals, except upon the assumption of some primitive tradition of the 'Lamb slain from the foundation of the world.'"

But these early ideas of the significance of sacrifice soon gave place to baser conceptions, though the unappeased consciences and restless longings of men still drove them to endless oblations, till in the centuries immediately preceding the rise of Gautama, sacrifice had become the central fact of Brahmanism. The land was deluged with the blood of slain beasts.

These excesses and the limp antinomian trust that a corrupt people placed in them, were among the evils which aroused Gautama as a reformer, and which drove him to the opposite extreme of trusting to nothing for salvation outside of one's self, renouncing prayers as well as oblations, and banishing God Himself from the universe.

But even the reactionary influence of Buddhism only checked the prevalence of sacrifice: it did not wholly overcome it. The blood of victims still flows on the altar of Kali,—but it is destitute of all spiritual meaning; it only satisfies the ferocity of a goddess, the very ornaments of whose image are a necklace of skulls.

Having traced these indications of a primitive faith in the early literature of Brahmanism, let us turn to the religions of China. Confucianism and Tauism were nearly cotemporary, both having arisen about 500 B.C. Neither was put forth as a religion, strictly speaking, and both were constructed out of materials which had long existed in the maxims and traditions of the people.

Tauism is only a Chinese name for Rationalism, the word tau signifying reason. In its present aspects, however, it is of all systems the most irrational. It is a modified materialism. Laotze, its founder, taught that the soul is material as well as the body, though it is of a finer and more enduring mold. He assigned a material but invisible soul to all principal objects of nature, thus opening the way for legions of superstitions, and filling the world as full of ghosts as it is of men, and beasts, and trees. Thus the rationalistic philosophy with which Laotze had set out, ended in a childish and universal geomancy to be played off on ignorant and credulous people by a host of priestly quacks; he had done little more than to systematize the old superstitions.

The ubiquity of this mysterious soul of nature is seen in the strange notion of *fung shuay*, which broods as an atmosphere over land and sea, and must be consulted at every step in life. The subtle doctrine of an invisible materialism is seen in the use of paper semblances of money, which, burned at the tomb, pay the passage of a departed soul, or, consumed on the altar of a joss house, enrich the exchequer of the god of wealth.

Tauism is so redundant in deities, gods of wealth, gods of good luck, gods of the farm and the kitchen, gods of rivers and groves and caves, gods of health and of disease, gods of war and of peace, of marriage and of birth, of seed time and of harvest—that it readily supplies every-day working superstitions even to those who profess adherence to Confucianism or Buddhism.

The three systems are on the best of terms with each other, and are more or less intermingled. They are patronized in turn by the great masses of the people, for Buddhism has assimilated many of these indigenous superstitions, and the proud, intellectual Confucian, though scorning the creed of the Tauist, still betakes him to his altars in an emergency, and like him is bound and fettered by *fung shuay* and all the puerile fetichisms that enthrall the land.

What then with Confucian temples, and innumerable tablets reared to the memory of ancestors, and Buddhist temples everywhere in groves and on the hill-tops, and Tauist temples and shrines and sacred places, a mixed and teeming polytheism swarms over the Empire.

But, meanwhile, there is one strange exception. There is still one august and conspicuous trace of a worship purer and more ancient than Tauism or Confucianism, or the Indian exotic of Gautama, and which in fact all these recognize and revere.

Let us hear Dr. Wm. A. P. Martin, of the Royal University of Peking, a man who is perhaps peerless in the literature of the Chinese language. First as to the existing polytheism, he says:

“The evidence of this strikes the voyager on every hand. In the sanpan that carries him to the shore, he discovers a small shrine containing an image of the river god, the god of wealth, and the goddess of mercy. His eye is charmed by the picturesqueness of pagodas perched on mountain crags, and monasteries nestling in sequestered dells; and on entering even a small town he is surprised at the extent of temples erected to Cheng Whang, ‘The city defender,’ and to Confucius, the patron of letters. Heaps of gilt paper are consumed in the streets, accompanied by volleys of fire-crackers. Bonzes modulating their voices by the sound of a wooden rattle, fill the air with their melancholy chant, and processions wind through narrow lanes bearing on their

shoulders a silver effigy of the Dragon King, the god of rain. These temples, images and symbols, he is informed, belong to the ‘*Sankaio*,’ the three religions.” All three are equally idolatrous, and he inquires in vain for any native sect, which, more enlightened or philosophical than the rest, raises a protest against the prevailing superstition.

Yet on acquiring the language and studying the religions of the country more fully, Dr. Martin finds the traces of a deep religious sentiment which is not connected with any of these objects of popular worship,—“a belief that in the invisible heavens, there resides some vague power who provides for the wants of men and rewards them according to their deeds.”

Over against his description of the prevailing polytheism he draws this second picture:

“Within the gates of the Southern Division of the capital, and surrounded by a sacred grove so extensive that the silence of its deep shades is never broken by the noises of the busy world around it, stands the Temple of Heaven. It consists of a single tower whose tiling of resplendent azure is intended to represent the form and color of the aerial vault. It contains no image, and the solemn rites are not performed within the tower; but on a marble altar which stands before it, a bullock is offered once a year as a burnt sacrifice, while the monarch of the Empire prostrates himself in adoration of the Spirit of the universe. This is the high place of Chinese devotion; and the thoughtful visitor feels that he ought to tread its courts with unsandaled feet, for no vulgar idolatry has entered here. This mountain-top still stands above the waves of corruption, and on this solitary altar there still rests a faint ray of the primeval faith.

“The tablet which represents the invisible deity is inscribed with the name of Shangte, the Supreme Ruler, and as we contemplate the majesty of the Empire before it, while the smoke ascends from his burning sacrifice, our thoughts are irresistibly carried back to the time when the King of Salem officiated as priest of the Most High God.”

Dr. Legg, the learned translator of the Chinese Classics, shares so fully the views here expressed by Dr. Martin, that he actually put his shoes from off his feet before ascending the great altar, as

if feeling that amid all the mists and darkness of the national superstition, a trace of the glory of the Infinite Jehovah still lingered there.

“There is,” adds Dr. Martin, “no need of extended argument to establish the fact that the early Chinese were by no means destitute of the knowledge of the true God. They did not, indeed, know Him as the Creator, but they recognized Him as supreme in Providence, and without beginning or end.” I am well aware that Max Muller takes ground against the theory that there was a primeval preternatural faith, but as I understand him, comparing passage with passage, he is speaking not against a primeval, but against a *preternatural* revelation. Indeed, he is a chief witness for a primitive and universal Monotheism, and a chief witness, also, for the universality of a revelation of the one God made to all races of men. Thus, in his *Science of Religion* he says, while speaking of old systems, “Like an old precious metal, the ancient religion, after the rust of ages has been removed, will come out in all its purity and brightness; and the image which it discloses will be the image of the Father, the Father of all nations. And the superscription, when we can read it again, will be not only in Judea, but in the languages of all the races of the world the Word of God, revealed where alone it can be revealed—in the heart of man.”

We shall insist on a division of the question presented by Max Muller; we accept his science but must reject his theory of Inspiration. We accept the generalizations of his rare scholarship as to the universality with which the Father (and he spells the word with a capital) once revealed Himself as “the Father of all nations,” but we halt at his assumption that that revelation was made only “in the heart of man.” That is not science; it is assuming to determine what could, and what could not, have been the method of God’s primitive revelation of Himself to mankind.

Let us consider some of the facts which the learned professor brings us from the wide fields of his research. “Is it not something worth knowing,” he asks in this same first lecture, “worth knowing even to us after the lapse of four or five thousand years, that before the separation of the Aryan race, before the existence of the Sanscrit, Greek or Latin, before the gods of the Veda had

been worshipped, and before there was a sanctuary of Zeus among the sacred oaks of Dodona, one *Supreme Deity* had been found, had been named, had been invoked by the ancestors of our race, and had been invoked by a name which has never been excelled by any other name?"

Going into greater particularity in his third lecture on the Science of Religion, he corroborates all that Dr. Martin has said upon the primitive monotheism of the Chinese in the worship of "Tien" or "Shangtien,"—the Spirit of Heaven, the Great One that dwells on high and regulates the affairs of men, of whom, as he says, "the Confucians never made any image,—but the Tauists represented him by the image of a man." In either case he was one. Then widening out his testimony in regard to a primitive and universal Monotheism, he says, "If we take the accounts of the most trustworthy travellers in Central and Northern Asia, and more particularly the careful observations of Castren, we cannot but recognize some most striking coincidences in the scattered notices of the religion of the Tungusic, Mongolic, Tartaric and Finnic tribes. Everywhere we find a worship of the spirits of nature, of the spirits of the departed, though behind and above it, there rises the belief in some higher power known by different names, sometimes called the *Father*, the *Old One*, who is maker and protector of the world, and who always resides in heaven."

He also quotes Menander, a Byzantine historian, who relates that the Turks (or Tukius) of his time "worshipped the fire, the water, and the earth, but that at the same time they believed in a God, the maker of the world, and offered to Him sacrifices of camels, oxen, and sheep."

He also cites the testimony of Carpini and Marco Polo, to the fact that "the Mongol tribes, though paying great reverence to the sun, the fire and the water, believed also in a great and powerful god whom they called Natagi." And he adds the witness of Castren, who declares that "the Tungusic tribes worship the sun, the moon; they worship images and fetishes, but with all this they retain a faith in a Supreme Being which they call Buga."

The mythologies of the Finns, the Lapps, and the Estonians all have the same conception under various names.

Extending his generalizations still further, Max Muller speaks of relics of an ancient African faith "with its strange worship of snakes and ancestors, its vague hope of a future life, and its *not altogether faded reminiscence of a Supreme God*, the Father of the black as well as the white man."

Passing still further on to the islands of the Pacific, he says: "Everywhere, whether among the dark Papuan or the yellowish Malay, or the brown Polynesian races scattered on these islands, there are prayers and sacrifices which even in their most degrading forms still bear witness to that *old and ineradicable faith* that everywhere there is a God to hear our prayer if we will but call upon Him."

I will only add that if we extend this line of inquiry to the continent of North America, we shall find that with some minor polytheistic superstitions, the Indian tribes have always retained the worship of one Supreme Being, and that many of their conceptions of the Great Spirit to-day are not unworthy of a place among the attributes of the Infinite Jehovah.

Now what a mass of indications have we here—I will not say positive proofs—that the worship of the one true God was once known, and through partial and shadowy traces was long retained by all heathen nations and races of men. They have gradually fallen from that pure conception, worshipping first nature, which is a veiling of deity, then the forces and elements of nature—sky, sun, moon, fire, water, then ancestors and heroes, rivers, trees, cattle, apes, and finally every variety of animal, and bird, and creeping thing, even the senseless fetich of a shell or a tiger's tooth, or a paltry stick.

From this historic survey of ethnic religions we turn once more to the Scriptural account of man's apostasy from the knowledge and favor of God, showing how by degrees he fell ever more and more into idolatry, worshipping creatures instead of the Creator, until even the chosen people of Israel were again swept into the resistless current of the surrounding polytheism, and we cannot but see that the two records answer to each other in a remarkable degree. The old systems in their history and

ramification have, at least partially, vindicated the records of revealed Truth.

I said that such internal witness in all sacred books, of a primeval faith in the one true God, if found, would go far to explain the interspersing of noble precepts among the corruptions of false systems.

Let us at the outset distinguish between moral principles which are stamped upon the understandings and consciences of men, and those positive revelations concerning God which are in a stricter sense religious truths. Ethical principles involving the intercourse of man with man are revealed in the heart and life as Paul has shown. The proverbs of all nations attest this fact. These proverbs are the terse expressions of human experience and observation running through many generations. Confucius plainly states that he was only an editor, a gleaner and compiler of the long existing wisdom of the Chinese. His power lay in the fact that his insight was keen, his range of study and observation wide, and that he was a master of epigrammatic statement.

The proverbs of a people may be more lasting than their religions, for while the latter may be modified by human theories and rituals, the former are of the nature of self-evident truths, and appeal to universal consciousness. They are a sort of common stock, and are current everywhere and from age to age. When Confucius says, "Be not afraid to correct your faults, for he who knows the right and fears to do it is not brave," he carries the assent of all men. When the Brahminical sages declare that "He has all wealth who has a mind contented," or the Buddhist precept teaches that "The well subdued may subdue others—one's self is hard to tame," the whole world will join in the chorus of approval.

Such proverbs simply show how clearly and uniformly the great principles of moral action are stamped upon the human understanding,—how unmistakably the notions of right and wrong are rooted in the human conscience.

The Golden rule which is taught alike by our Saviour, by Confucius, and by the author of one of the great epic poems of India, simply expresses one of the most obvious rules of life that can occur to any well-balanced mind. In actual experience it is

hard enough, but in the justness of the precept nothing is clearer or more convincing; it is but the equivalent of our homely maxim that "The same rule should work both ways."

What our Saviour did was actually to enforce this well-known rule in the daily life of His followers.

There is another class of precepts which reveal a close resemblance to religious principles, which, however, is only a resemblance. When Christ declared that he who had sinned in the least was guilty of all, He inculcated a deep spiritual truth. He referred to the principle of disloyalty to God. But when the Buddhist proverb tells us that "The man who has transgressed one law—there is no evil that he will not do," it is simply a generalization of character. It refers not to the principle of his guilt, but to the chances of recurrence in that or similar offenses.

But there *are* precepts found in false systems as well as prayers and sacrifices, which even in the midst of most degrading rites "still bear witness," as Max Muller says, "to that old and ineradicable faith that everywhere there is a God to hear our prayers." Out of the subsoil of early and hereditary religious convictions, it is not strange that here and there a beautiful flower should spring. Thus, while our Saviour in His exquisite lesson of trust, says, "Behold the lilies, they toil not neither do they spin, and yet Solomon in all his glory was not arrayed like one of these," a shastra of the Brahmins says with almost equal beauty, "He by whose hand the swans are painted white, the parrots green, and the peacocks many-hued, will make provision for thy maintenance."

Alas! that the name and glory of this *One Creator* who did tint the beauties of bird and flower in gorgeous India, should have been lost in the din and jargon of polytheistic idolatry.

Another deduction which may be derived from the facts which we have considered, is that the doctrine of *evolution* in the religions of the world is not tenable. If the faiths of all nations have shown a downward trend from an early monotheism to the worship of nature and then the forces of nature, and lastly to the countless objects of nature,—if, as DeQuincy has expressed it, "All idolaters by intercepting the idea of God through the prism of some representative creature that *partially resembled*

God, have refracted, splintered, and distorted that idea till the pure white light of the 'truth' is lost, then the theory of a gradual advance must be abandoned. I am not now drawing arguments from the Scriptures. I am referring to facts plainly revealed in the history of the false systems themselves.

The Indian Brahmanism was at first not only monotheistic, but it had no doctrine of caste, no dreary foreshadowings of transmigration. It gave no sanction to the horrors of the suttee or of infanticide. It had not laid its hopeless restrictions upon the life of woman. It gave no place to the fanatical ferocity of the Thug, or the vile worship of cattle and of apes, or the still more debasing and unspeakable worship of the *linga*. All these have been added successively in its downward course. Instead of advancing, it has even seemed incapable of reform. In the midst of its degenerated career, Gautama rose up with his protest and reformation, but he only passed to another extreme, and his system finally lost its hold on India, whatever it gained elsewhere.

Mohammedanism entered the field with a pure monotheism. To woman Islam only brought a worse seclusion and a deeper degradation ; but instead of its having healed the turbid waters of Brahmanism, the two tides of corruption have flowed on together.

Nanak the Sikh attempted a reform by constructing a union of the best things in both, but his followers have only ended in the senseless worship of a book.

The last reform of Hinduism is that of the Brahmo Somaj. Like a brilliant comet it seemed at one time to be fast approaching the domain of Christian truth, but it finally receded into empty space. And after all these reforms the old Brahmanical system is most aptly compared to a banyan tree, which from one original trunk has extended its far-reaching branches and multiplied countless other trunks, till it has become a dark and impenetrable jungle of polytheistic superstitions. The best that can be said is that it is dying at the tops.

Finally, we have in a complete and just knowledge of the Oriental faiths a strong vantage ground for the work of Christian Missions. Fifteen years ago Dean Stanley named it as one of

the great encouragements of the missionary work, that we were coming to a better understanding of heathen systems, and to wiser methods in dealing with them.

Is it not worth something to be able, when pleading with Hindus for the emancipation of crushed and down-trodden women, to be able to quote their own great authority Manu, when he says, "The mother is worth a thousand fathers," or to read to them from one of their great epic poems :

"A wife is half the man,—his truest friend,
A loving wife is a perpetual spring
Of virtue, pleasure, wealth.
A faithful wife is his best aid
In seeking heavenly bliss."

May it not be of some avail to show them that the early Vedic faith exalted the domestic virtues and accorded to woman a dignity and independence which she does not now enjoy? Is there no argument in the fact that neither in the Vedas nor in the laws of Manu is there one syllable that gives countenance to the suttee or to the cruel restrictions that rest upon child-widows, and that the severe seclusion now enforced upon the sex was largely borrowed from the hated dominion of Islam? Might not intelligent Chinese Confucians be pointed with some hope of success to the great altar of Shang-te, in whose solemn rites there are such striking resemblances to the ancient worship of Jehovah by burnt offerings, and to the various references in the Chinese Classics to a primeval faith upon which both of their great national systems were based?

Something might be gained, I think, by placing side by side with the proverbial reverence of the Chinese for the parental relation, those high filial precepts which are found in the Word of God. There is an argument which could be drawn from the fact that all the great nations have traditions of a flood, that in many systems there are conceptions of a Trinity and of incarnations of deity in human form. These mysterious doctrines, against which objections are most naturally raised by thoughtful natives of heathen lands, might all be shown to have, if not a foundation, at least a recognition in the heathen systems of the world. And in the forms and rites of the most

corrupt of the Chinese idolatries, as I am informed by Rev. A. P. Happer, D.D., there are marked resemblances to the historic worship of Jehovah. Might not a strong hold be taken upon the mind of a candid Moslem by pointing out evidences in the Koran itself that Mohammed regarded Christ as a perfectly sinless being, an honor accorded to no other prophet, while he himself was confessedly guilty of unbridled passions which only a special dispensation could condone?

In general terms, a recognition of whatever precepts of a worthy character may be found in the systems which the missionary is endeavoring to overthrow, might disarm opposition, and especially that opposition which strengthens itself in a conscious sense of injustice on the part of those whose faith is assailed as utterly wanting in anything worthy of thought.

Perhaps the very strongest argument against Buddhism is the fact that its own logic has always proved it untenable. Its seeming kindness has attracted millions of men, but practically they have shrunk from its conclusions. They have found the inanities of Nirvana a stumbling-block, and the endless round of transmigrations an unthinkable and disheartening mystery.

Though taught by orthodox Buddhism that there is no God, yet taking counsel of those deep wants of the human soul which cry out for Divine help, its followers have made to themselves gods on every hand. Though discouraged from prayer and thrown back upon their own inner struggles for all hope, yet they have always prayed in their own merit-making fashion. And in the Buddhism of North China and Japan there is to-day a confident expectation not of extinction, but of a heaven situated somewhere beyond the setting sun. Two of the most popular Buddhist sects of Japan hold to something very like the doctrine of salvation by faith. They put their trust in a Being whom they call Amita Buddha, not Gautama, and in him is their salvation. They trust not in their own endless struggles, but in his help. They are saved not by their own righteousness, but by his grace.

Prof. Max Muller, who has carefully studied their creed, deplores their apostasy, and has sent them a public invitation to send men to Oxford, who shall learn, through the Sanscrit language, the true Buddhism in its pristine purity. But, friends,

my point is this ; what a grand opportunity is here afforded to Christian missionaries who rightly apprehend the situation and can wisely use it—what a grand opportunity to lead the Japanese, not back to the old Buddhism of twenty-five centuries ago, but *forward* to that Christian doctrine of salvation by faith to which they make so strange an approximation.

In dealing with the adherents of other faiths, a broad distinction should be made between moral precepts and spiritual truths—between intuitions and revelations.

The real test to be applied to a religion is the question, What does it claim for itself? Is it merely a compend of ethical teachings, or is it a preternatural revelation from heaven? What does its founder assume to be, and does he establish his claim? Gautama, Confucius, Laotze, Mohammed—none of these pretended to be Divine, whereas Jesus announced Himself as the Son of the Father, the expressed image and glory of the God-head. And such is His place in all history. Concerning the unseen world and the life to come, Confucius was confessedly agnostic, and the teachings of Gautama advanced to the last given conclusion of blank Atheism—nay a Nihilism which swept away the soul itself; while Jesus, standing in the presence of the dead, declared Himself the Resurrection and the Life.

It has been well said that, in the highest flights of poetic imagination and in the sublimest ethics that have been taught by the religions of the East, there is nothing to be compared with the great doctrine of justification by faith, compassing eternity, past and future, in its plans. There is but One in heaven or in earth who presents Himself as a sacrifice in the sinner's place, and thenceforth an intercessor and an elder brother forever. In all the attractions of poetry that are interwoven with the doctrine of transmigration, there is nothing that so breaks the gloom of the sepulchre and gives wings to human hope as Paul's beautiful discourse upon the Resurrection. And all the merit-making of a thousand successive probations of the soul could not equal the free and blessed boon of the Remission of Sin with its grand assurance, “ This day shalt thou be with me in paradise.”

VIEWS AND REVIEWS.

A GREAT BLUNDER OF SCIENCE.—We used to hear in times gone by of the dogmatism of Theology. In our day theology speaks with great caution. Dogmatism in the last quarter of the nineteenth century is most especially the language of Scientists. We do not say this in any unfriendly spirit to science, but we do feel that the airs assumed by many of our distinguished and undistinguished professors of physical science deserve to be rebuked. That is not the spirit of true science. In this connection we may call attention to the lordly and patronizing attitude assumed by three or four of our well-known scientists in the “Symposium” reported in the current number of *CHRISTIAN THOUGHT*.

We noticed last week the brief career of that wonderful substance, said to have been brought up from the depths of the sea in connection with the laying of the Atlantic cable, and which Prof. Huxley hastily announced to be the long-sought-for “physical basis of life,” and which Mr. Murray, one of the Scientists of the Challenger expedition, accidentally ascertained to be nothing but a precipitate from a mixture of sea-water and spirits of wine found in some old bottles.

Two other grave errors, we are now informed, have been recently pointed out in connection with two of the most celebrated (and, as was supposed, among the most firmly established) scientific theories—theories which for many years had won the acceptance of almost the whole scientific world. When we learn now that these ancient and beautiful theories in virtue of newer and more recent investigations, are the one overthrown, and the other materially shattered, we are at once admonished of the supreme importance of the greatest caution in our scientific speculations, and that scientific men ought at last to learn the lesson of the great danger of indulging in a dogmatic vein about the results of science.

One of these great mistakes to which we refer is treated of in a very brilliant article by the Duke of Argyll in a recent number

of the *Nineteenth Century* under the title of "A Great Lesson." When Mr. Darwin made his famous "Voyage of a Naturalist" in the Beagle in 1832-36, he was particularly struck in crossing the Southern Ocean, and greatly puzzled, by "its wonderful coral reefs, its thousands of coral islands, and its still more curious coral atolls." He saw the great continental coasts and many of the great continental islands of the Pacific fringed with barrier reefs of coral. This coral grows in the form of a linear barrier along a coast, never touching it, and always leaving a channel of water of greater or less width (sometimes many miles) between the reef and the coast. This phenomenon is repeated throughout the thousands of islands that dot the Pacific. Darwin at once brought his great mind to the study of the subject. There had been various theories to account for the facts, but they did not satisfy him. The facts were these: 1. The reef-building corals could not live at a greater depth than twenty or thirty fathoms; 2. They cannot live in water charged with sediments, or in water protected from the current of the sea and winds; 3. The coral rises suddenly like a wall out of the ocean depths, the waters giving often soundings of 1,000 fathoms close up to the reefs; 4. The inner side next the coast is also washed by moderate depths of water.

Darwin propounded the following solution of the enigma:

"From the fact of the reef-building corals not living at great depths, it is absolutely certain that throughout these vast areas, wherever there is now an atoll, a foundation must have originally existed within the depths of from twenty to thirty fathoms of the surface. It is improbable in the highest degree that broad, lofty, isolated, steep-sided banks of sediment arranged in groups and lines hundreds of leagues in length, could have been deposited in the central and profoundest parts of the Pacific and Indian Oceans, at an immense distance from any continent, and where the water is perfectly limpid. It is equally improbable that the elevatory forces should have uplifted throughout the above vast areas innumerable great rocky banks within twenty to thirty fathoms, or one hundred and twenty to one hundred and eighty feet, of the surface of the sea, and not one single

point above the level; for where on the whole face of the globe can we find a single chain of mountains, even a few hundred miles in length, with their many summits rising within a few feet of a given level, and not one pinnacle above it? If then the foundations, whence the atoll-building corals spring, were not formed of sediment, and if they were not lifted up to the required level, they must of necessity have subsided into it; and this at once solves the difficulty. For as mountain after mountain, and island after island, slowly sank beneath the water, fresh bases would be successively afforded for the growth of the corals."

So certain was Darwin of these conclusions, that he adds, in a most unwonted tone of confidence:

"I venture to defy any one to explain in any other manner how it is possible that numerous islands should be distributed throughout vast areas—all the islands being low, all being built of corals, absolutely requiring a foundation within a limited depth from the surface."

Darwin, says the Duke of Argyll, landed in England in October, 1836, and in May, 1837, read a paper embodying his views before the Geological Society of London. "His theory took the scientific world by storm." Lyell, who had previously adopted the volcanic theory of the origin of the coral islands in the first edition of his "Principles," embraced Darwin's new theory at once. "The theory of the young naturalist," says the reviewer, "was hailed with acclamation. It was a magnificent generalization. It was soon almost universally accepted with admiration and delight. It passed into all popular treatises, and ever since for the space of nearly half a century it has maintained its unquestioned place as one of the great triumphs of reasoning and research."

And yet there was not one word of truth in it. That has now been proved. A highly distinguished member of the staff of the "Challenger" (so celebrated in recent years for its Deep Sea Soundings), Mr. John Murray, has modestly blown Mr. Darwin's theory of coral reefs into atoms.

Darwin's facts had been in the main correct, but there was one little mistake.

"It was true that the corals could only grow in a shallow sea, not deeper than from twenty to thirty fathoms. It was true that they needed some foundation provided for them at the required depth. It was true that this foundation must be in the pure and open sea, with its limpid waters, its free currents, and its dashing waves. It was true that they could not flourish or live in lagoons or in channels, however wide, if they were secluded and protected from oceanic waves. One error, apparently a small one, crept into Darwin's array of facts. The basis or foundation on which corals can grow, if it satisfied other conditions, need not be solid rock. It might be deep-sea deposits if these were raised or elevated near enough the surface. Darwin did not know this, for it is one of his assumptions that coral 'cannot adhere to a loose bottom.' The Challenger observations show that thousands of deep-sea corals and of other lime secreting animals flourish on deep-sea deposits at depths much greater than those at which true reef-building species are found. The dead remains of these deeper-living animals, as well as the dead shells of pelagic species that fall from the surface waters, build up submarine elevations towards the sea level. Again, the reef-building coral would grow upon its own *debris*—rising as men, morally and spiritually, are said by the poet to do, 'on stepping-stones of their dead selves to higher things.' This small error told for much; for if coral could grow on deep-sea deposits when lifted up, and if it could also grow seaward, when once established, upon its own dead and sunken masses, then submarine elevations and not submarine subsidences might be the true explanation of all the facts."

But what of the lagoons behind the reefs—the well-defined channel always found between the reef and the coast? We have not space to give this—save only to say that it did not occur to Darwin that as the coral reefs pushed out seaward, the rear might *rot* under chemical action, as the vital energy of the coral animals failed in the sheltered and comparatively stagnant water. Such Mr. Murray seems to have demonstrated to be the fact.

And so this great generalization has fallen—and one equally grand has, after fifty years of scientific certainty, taken its place.

Says the Duke of Argyll:

"Mr. Murray's new explanation of the structure and origin of coral reefs and islands was communicated to the Royal Society of Edinburgh in 1880, and supported with such a close texture of reasoning that no serious reply has ever been attempted. At the same time the reluctance to admit such an error in the great idol of the scientific world, the necessity of suddenly disbelieving all that had been believed and repeated in every form, for upwards of forty years—of canceling what had been taught to the young of more than a whole generation—has led to a slow and sulky acquiescence, rather than to that joy which every true votary of science ought to feel in the discovery of a new truth and—not less—in the exposure of a long-accepted error."

The reviewer closes this portion of his article with some observations that are well offered in this connection. He remarks:

"In a recent article in this review I had occasion to refer to the curious power which is sometimes exercised on behalf of certain accepted opinions, or of some reputed prophet, in establishing a sort of reign of terror in their own behalf, sometimes in philosophy, sometimes in politics, sometimes in science. This observation was received as I expected it to be—by those who being themselves subject to this kind of terror are wholly unconscious of this subjection. It is a remarkable illustration of this phenomenon that Dr. John Murray was strongly advised against the publication of his views in derogation of Darwin's long-accepted theory of the coral islands, and was actually induced to delay it for years. Yet the late Sir Wyville Thomson, who was at the head of the naturalists of the Challenger expedition, was himself convinced by Mr. Murray's reasoning, and the short but clear abstract of it in the second volume of the 'Narrative of the Voyage' has since had the assent of his colleagues."

Darwin made one of those vast mistakes which science has more than once fallen into, and until the voyage of the Challenger, professors of geology would have brooked no contradiction of his theory. Darwin taught us that over an area of some 6,000 miles in length by 1,000 or 2,000 miles in breadth, there had been on a grand scale a subsidence of the bed of the Pacific,

whereas the truth was there had been no subsidence at all, but on the contrary a process of elevation. The amount of the subsidence was estimated in some places to have been as much as 6,000 feet, or more than a mile—and all this, it was believed, had occurred in the post-tertiary period.

The mistake into which the great observer fell has a parallel in the fate which seriously menaces in the present aspects of science, the great Nebular Theory, which has received the endorsement of almost every great name in science in our day. See, for example, Professor Alexander Winchell in his recent work entitled "World Life or Comparative Geology," and the article entitled "Nebular Theory" in the latest edition of the "Encyclopædia Britannica" by Professor Ball, Astronomer Royal for Ireland.—*Central Presbyterian.*

We call attention to the fact that it was this same Mr. John Murray who spoiled Mr. Huxley's beautiful discovery of "Bathybius" and the vast expanse of living "protoplasm" which he announced with Professor Haeckel had been found to spread like an animated blanket over the whole bed of the ocean.

INFLUENCE OF PHILOSOPHY ON POLITICS.—The Meji-Gaku-In, at Tsukiji, Japan, is under the presidency of Dr. James C. Hepburn, of the American Presbyterian Church. The report of the second commencement exercises contains an address delivered by one of the graduating class, as showing what Christian education can do for the Japanese. The oration is printed just as delivered. The gentleman, Mr. Bumpei Shirasu, a graduate of the academic department, spoke with vigor and ease, and in faultless English, upon the "Influence of Philosophy on Politics," as follows:

"Man acts as he thinks. A nation, likewise, acts as it thinks. But reason does not absolutely govern men. Some believe in what is told them against reason, and act in accordance with such unreasonable belief; yet reason does, to some extent, influence human thoughts, and, consequently, human actions. Philosophical theories that are called reasonable are sometimes contrary to facts and common sense. These also have their measure of power in influencing man, because of the reason that

seems to be in them. Therefore, it is true to say that philosophy has an influence on political life. A state is simply a collection of individuals, and the individual man is the subject of the science of psychology. Therefore, economics, sociology, law; in fact, all phases of political science, because they pertain to the actions of man, are consequents of psychology. The influence of philosophy on the thoughts of statesmen and others is marvelous. History abounds in illustrations. For example, Plato thought that the individual had no real existence in the State, *i. e.*, that individuals were nothing and the State was the one all to him; and that all separate existences of the universe were simply phenomena of the one absolute idea. However, philosophy and practice do not always go hand in hand. I never heard of Voltaire defining his mother's love by the law of the pendulum, or by a modification of that law. But if, by some reason or other, he is convinced, to a more or less extent, that his father is nothing but a piece of mechanism, there ought to be some difference as to the mode of his treatment of him. But, to be serious, how disastrous is the effect of the influence of these hypotheses on the practical, political world. Materialism and idealism are, to some extent, comprehensible. I can well appreciate them because I can understand how finite minds, unassisted by the Supreme Wisdom, should deny either matter or spirit or submit to skeptical illusions, for the various hypotheses of those to attempt to philosophically comprehend what common sense authorizes, *i. e.*, the existence of matter and spirit, are so ambiguous and misleading. Just as the Greek Zeno denied possibility of motion because his limited capacity could not apprehend infinite space and time, skeptical, materialistic philosophies readily influence philosophers and politicians who are surrounded by social disorder. And, if they are reactional revolutionists, these philosophies will appeal strongly to them and control their actions. Yet, it is almost impossible that illegal and savage revolutions should be led by sound thinkers, who follow common sense rather than destructive philosophies. I have heard that even the Revolution of 1776 had some skeptical elements in it. How much more so it must have been with France, under the leadership of Danton, Desmoline, Robespierre.

Philosophy influences the political stage through society. This influence has a wider sphere, so it requires longer time before it appears in material effects. To make two men believe in the same thing is a great task, but greater is the task to make them disbelieve what they have once believed. And how much more to attract the national ear, how much more to change national ideas. Philosophy is a repugnant study to man in general. But philosophy, if it once takes hold of the national idea, is not likely to be sorted out with ease. It is not necessary that every *jinrikishaman* should be talking of Descartes, in order to prove that the community is capable of being influenced by philosophy. Nor is it necessary to say that every nation must be Christian in order to share the fruits of Christianity. I do not say that every man must be a capitalist in order to share the fruits of labor. But I do say that philosophy can carry its resultant idea through perhaps not its system as a whole, into vulgar minds. And therefore it has an influence on the national thought. The largeness of this influence depends on circumstances. Where the social union is so loose that there exists no common tie, then it can only be local in its effects. Historians marvel at the success of the Crusades in giving Europe her just liberal ideas, in spite of the feudalism yet prevalent. The Crusades were able to do so only because there was, in Europe, at least one widely prevalent influence, a religious one. If so with religious sentiments, so also with philosophical ideas. Where the social elements are intimately blended, the influence is extensive. Therefore the more the world is civilized the greater is the extension of this influence. This influence also depends on the character of philosophy itself. It is well known that philosophy is reason, and so the maxim is true that the most reasonable thing or idea should naturally prevail. Now, while this ought to be the case, it is not always so. It cannot be so as long as human reason is governed by prejudice and passion; whatever is most generally held most widely influences society. When the character of a philosophy corresponds with the existing conditions of society, this influence is most extensive, and consequently the results are great. Whether the old deductive philosophy moulded the dull political Europe of the middle age, or

whether that age when justice was tested with fire and sword of the duelist created the reigning philosophy, I cannot tell. It is certain, however, that the ideas of political and social Europe at that time were analogues to the dull deductive philosophy of the day. An old master's reply to his disciple, when the latter suggested a new theory, was, 'I never read of such a thing in Aristotle,' and he well represented his age. But alas! quite a different and more active period came. Observe how marked was the effect on European politics of the theological revolutions of Calvin and Luther; what a political Europe it was when Abelard with his eloquent dialectic swept away the dust of the old theological dogmas, dethroning their expounder, the proud Fulbert! 'He was raised to try the experiment of liberty.' What an age it was when Descartes, Bacon, Leibnitz brought Aristotle down to the level of advocates of 'old things!' He had once been a propagator of new theories, which in the middle ages had become old—it was the cradle of the political as well as the intellectual freedom of Europe. Europeans of what other age would have thronged around Voltaire with so much enthusiasm. He was mistrusted by Louis of Gaul, and rejected by Frederick of Prussia. From one end of Europe Fenelon cried out: 'I love my family more than myself, I love my country more than my family, I love humanity more than my country,' and the despotism of Europe began to shake from its foundation. Of course the place nearest to him was agitated the most. And although Russia, at the other end, seemed to have been undisturbed, we witness Nihilism gradually springing up from that time. Russia was not ripe for sudden revolution. In central Europe, Gustavus Adolphus, impelled by political and religious necessity, led his Swedish infantry on to German soil and left Germany free from intellectual and religious slavery. But Europe became pacified. Into France, when her great reaction came and the skeptical idealism of Fichte was no longer able to satisfy her, and Robespierre and Danton lost their heads, the Scotch philosophy of Reid gradually found its way. This shows how much philosophy owes to political and social conditions for its wide acceptance. Therefore is history interesting, because there is philosophy in history, and history in

philosophy. But to what extent this is true it is difficult to say. I believe it is impossible to answer until the question, What is man? has been answered. We wonder how arbitrary rulers governed the wild and warlike societies of barbarism, and at the same time made those societies feel and have such a measure of absolute dependence upon themselves. It is true to say that the rulers could not have done so without some form of theocracy. These societies feared the revengeful punishment of the deity, and their rulers were semi-gods to them. And what gave civil governments their theocratic forms? It was their philosophy, narrow though it was, as well as their religion. Indeed, it was a mixed religious and philosophical influence that wrought so effectually upon the barbaric mind. But let them have known what was man, and the forms of theocracy would have lost their power. Philosophy, as well as religion, offers an analysis of man's character. Philosophy tells us that human knowledge is partial if it is in the possession of only a few persons. It claims, therefore, that knowledge is complete only when the deficiencies of such persons are supplied by the efficiencies of each. Thus a community which thinks for itself argues that politics should not be the monopoly of a few individuals. It defends freedom of speech, not from selfish, but from patriotic motives, and from a longing for the wide acceptance of truth. It is therefore true to say that there is an influence exerted by philosophy on politics, whether the philosophy be true and good, or false and evil. Therefore let politicians and society study more about philosophy. Let politicians know and accept as true the statement, that while society is finite in power, they are also finite in power and insight. If this had been realized from the beginning, how different the world's history would have been. Let society adopt philosophy that has common sense in it. Let the national idea be regulated by sound philosophy. This is one step toward the establishment of a firm and civilized political building; sound philosophy is a step toward sound ethics. And where is to be found a philosophy superior to the ethical philosophy of the moral law? When men act under the influence of that law in the conduct of private and public affairs, then, and then only, do their actions make for peace and purity.

RELIGIOUS WORK IN UNIVERSITIES.—On Wednesday afternoon, Sept. 28th, three or four hundred persons were gathered in the chapel of the University of Pennsylvania to listen to Professors Drummond and Simpson of the University of Edinburgh, who are visiting the colleges of America, and telling them of the religious work done in the University of Edinburgh.

Professor Drummond said in substance:

“Our colleges have, unfortunately, been in a very irreligious condition; we have had no chapel, no Christian Associations, nor any attempt to bring religion before the students, until three years ago. We began to see that our best men were being rapidly left outside of all religious influence. Some of the students became interested in the churches in town; but nothing was done for them *as students*; and especially nothing was done for the skeptical.

“Three years ago, a movement was started by some athletic men from Cambridge, who had devoted themselves to mission work; they held some meetings with us, which set the ball rolling. Presently, we took a hall holding nine hundred, which would be filled; and a great change took place. I do not mean that all the students had become Christians; but new thoughts were started; scientific men in the faculty found in Christianity a new fact. This has not been a flash in the pan, but a steady growth.

“We desire to tell the students of American colleges some of the lines on which, according to our experience, work can be done for students. But we have been delighted to find how much is already done. There is little that we can teach you; we shall carry much home.

“We have among our students men who are not opposed to religion, but who distrust the power of religion. Ruskin says: ‘I do not wonder at what men suffer, but at what they lose.’ We have felt that these students were losing much.

“As to the views of religion that we have tried to lay before our students:

“We have no cant, no sanctimoniousness, nothing unreal or exaggerated in expression or feeling. We hold that students and young men and boys are to be religious as students and

young men and boys, not as their grandmothers would be. Young men have felt that, if they became Christians, they must adopt a certain set of phrases. We tell them that every tree must bear fruit after its own kind.

“We are careful not to interfere with their studies. We believe that the first thing is for them to attend to their daily work. We hold meetings only on Sunday; we have never held such a meeting as this of to-day.

“We do not interfere with their amusements; we believe that the highest manhood is consistent with Christianity. We have got the best athletic men; out of a foot-ball fifteen, twelve were taking an active interest in these meetings. A majority of the athletes are Christian men.

“We do not interfere with intellectual speculation. We do not believe that a Christian man must crucify his intellect. The young men have got hold of a reasonable faith. Instead of their holding religion, religion holds them, taking in their intellect, their feelings, giving them a new and more abundant life. Christianity does not consist in having correct views. We do not expect a man to solve all the problems of the universe. We tell them not to let the religious life stand still while they are solving all problems. Rather, they are in all their lives and ambitions to follow the steps of Christ.

“Christianity has within it scope for the highest thought of men. A man comes and says, ‘I believe in evolution; can I be a Christian?’ We say, ‘Well, let us see how far development will carry you. It has given you a body; what more can it do for you?’ We try to show that Christianity is the highest evolution, carrying men on to a fuller and higher manhood. We bid the man follow the higher evolution.

“We ask the men to save their lives; we do not ask them to save their souls. We ask them, ‘Is he who founded the kingdom of God worthy of your life?’ We are after the best men.

“When they denounce the unworthy acts of professed Christians, we say, ‘It is the spirit of Christianity to denounce all that is hypocritical and insincere.’

“We say to them, ‘To practice your profession is well; but

if you want to be a true man, and to succeed, seek the kingdom of God.' That appeal finds a response. It is an appeal to all that is good in them.

"Education is well; but take religion out of a state, and you take out the best part of it. An eminent man said, 'Show me a place ten miles square, outside the influence of Christianity, where true happiness and the highest welfare prevails; and I will give up Christianity.' Show me a street where there is no Christianity, and I will show you a street that is corrupt and rotten. One man in a hundred can, perhaps, keep up an upright life without the power of Christianity. He is sustained by his environment; but what will become of the rest? What will become of your city and your country, if your brightest and best minds are turned away from Christianity? Religion is salt; it is leaven; it is light. We set before you a religion that will engross your whole life.

"We come to engage the brightest and best among you in Christ's service. Place Christ's interests before your own. Be in the society of Christ. The man who abides in Christ is changed, transformed. Do not delay this until you have learned all the branches of sciences."

Professor Simpson, the next speaker, is older than Professor Drummond. He is a member of our American Institute of Christian Philosophy, and has done it good service. He spoke in substance as follows:

"When visiting Amherst College, I saw three rows of paling on the grounds. I asked if these were connected with gymnastics, as I had just visited with some envy the gymnasium. I was told that these had been erected for the students to sit on.

"Now, to sit on the fence is a very bad practice, especially in the matter of Christianity. There is a fence between Christ and the world. Men cannot sit there long. Often a man thinks that he is sitting on the fence, smoking his pipe and judging Christians; when, in fact, he has tumbled off on the wrong side.

"Once, when we in Scotland were threatened with invasion by the French, the men were rushing to the shore, when they saw hobbling after them an old woman. 'Hout, woman,' said one, 'you are nae good for fighting.' 'No, but I can show which

side I am on.' We want all the students to take sides. We want the students, especially the medical students, to understand that they will be no less useful to their fellow-men if they are Christians.

"Four years ago, the University of Edinburgh celebrated its ter-centenary. We had invited learned men from all lands.

"The students asked the Senatus to give them a forenoon when they might ask some of the visitors to speak to them. The request was granted. They selected a dozen eminent men to address them. There were 1,200 students present, and in the galleries 2,000 spectators. Sir Stafford Northcote, the Lord Rector, presided. The presence of the young men seemed to inspire the speakers and to draw from them the best and deepest that was in them. Pasteur said: 'Youth is the period of enthusiasm. Enthusiasm is, in the Greek, *God in us*. Young men, whatever you do, do not fail to cultivate the Divine in you.' De Lesseps told the story of his life; it was a story of providential leading. The same of Helmholtz, the next speaker. He started out to study medicine; but he was led by a power outside himself to devote his life to physical science. Another eminent man of science spoke of the need of basing our lives on fact, not on fancy. 'I have no objection to the idea that man is developed from a pro-anthropos; twenty years ago I was alive to the likelihood of the discovery of the pro-anthropos, the missing link; but it never came; every skull which promised to be the skull of the pro-anthropos, proved to be the skull of a man. So I have become discouraged. I have no objection to the theory of spontaneous generation. It is conceivable. But there is a man sitting on this platform [Pasteur] who has shown that spontaneous generation does not exist. I do not deny your right to think of spontaneous generation; but I say to you medical students that, in your practice, you will find instances of epidemics and prevailing diseases; and it will not do for you to practice medicine on the basis of spontaneous generation.'

"Then an eminent Dutch theologian spoke. I trembled, for, somehow, Dutch theology has a bad reputation; I was afraid that we were going to have all sorts of neo-theology. I am not much of a theologian; I do not know much about it; I want a

theology that will help me in the battle that is going on all the time within me, between good and evil. But, to my surprise, the Dutch theologian made the most orthodox and evangelical address of the day. He referred to the crest of the University on which is a book; he said: 'This book is the Bible.' And then he told the story of Sir Walter Scott on his death-bed. He asked his son-in-law Lockhart to read to him; Lockhart asked 'From what book?' Scott answered, 'Can you ask? There is but one.'

"Then Lavalaye of Liége spoke, the great authority on International Law. He said: 'Every man thinks that his subject is the most important. I affirm that the questions that concern the well-being of mankind are the greatest of all. And when you are considering these, take in your left hand Adam Smith and Herbert Spencer; but in your right hand, take the Bible. For we shall be near solving the great problems which affect mankind when we heed that word of Christ, "Seek ye first the kingdom of God."'"

"TO THE THIRD AND FOURTH GENERATION."—There is an awful sound in the words of the second commandment, which represent God as visiting "the sins of the fathers upon the children unto the third and fourth generation of them that hate" Him. This statement should always be connected with that which immediately follows, "and showing mercy unto thousands [of generations] of them that love" God and "keep" his "commandments."

We are to remember that these two statements were written together, and that they were published thousands of years ago. Were they "mistakes of Moses?" Let us see.

Of late years much attention has been paid to heredity. An immense number of facts have been gathered, and certain apparently trustworthy principles have been settled. Among these are, (1) that physical and intellectual traits are transmissible; (2) that they are modified, strengthened, or weakened by circumstances, or, as the scientists say, by environment; and (3) that a vicious heredity, such as the alcoholic heredity, finally causes a family to become extinct.

As early as 1781 Erasmus Darwin, in his *Botanical Garden*, wrote: "It is remarkable that all the diseases from drinking spirituous or fermented liquors are liable to become hereditary, even to the third generation, gradually increasing till the family becomes extinct." Mark that phrase, "unto the third generation."

One hundred years after (1886) Dr. Carothers, of Hartford, in a paper on "Inebriety and Heredity," wrote: "In these cases there seems to be in certain families a regular cycle of degenerative diseases. Thus, in one generation great eccentricity, genius, and a high order of emotional development. * * * In the next generation, inebriates, feeble-minded, or idiots. In the third generation, paupers, criminals, tramps, epileptics, idiots, insane, consumptives, and inebriates. *In the fourth generation they die out*, or may swing back to great genius, pioneers, and heroes, or leaders of extreme movements."

A very great amount of authority could be brought to confirm these statements. It is a very natural question how so early an author as the writer of Exodus xx. could know that vicious heredity has a tendency to run down three generations and to become extinct in the fourth. Such knowledge, thousands of years before the possibility of science was ever suspected, is surely remarkable.

Another remarkable thing is that, having been so scientifically correct in regard to vicious heredity, the author made no mistake in regard to heredity in general by fixing the limit of all heredity at the fourth generation. All intervening history from the days of Moses to this day confirms the teaching of modern science, that good characteristics may be perpetuated indefinitely, and that is the meaning of "thousands" of generations. Vicious traits may be eliminated.

If a man with a vicious tendency struggle against it and strive to live according to God's commandments, and especially if he marry a woman who comes of the seed of the godly, and his offspring pursue the same course, the power of the evil tendency will be diminished until, in succeeding generations, it shall be destroyed.

The man who inherits soundness of body and mind from an-

cestors who have bequeathed him also a heritage of holy living, may expect his line of descendants generally to be rich in good impulses, which will never die out so long as they love God and keep His commandments, and inter-marry with those that do the same. Nor will that family itself become extinct. These transmitted traits secure the perpetuation of the family.

Lessons of tremendous responsibility are taught by this law of heredity. No man liveth for himself; he liveth also for his offspring. A voice from far-down ages calls each man and woman to purity. No man can guiltlessly neglect the environment of his children. If for his personal convenience or comfort or aggrandizement he expose his children to a vicious surrounding, they will absorb evil influences which will create evil traits, and those traits will be transmitted.

Every man is bound to examine the antecedents of the woman he is to make his wife. Every woman is bound to make sure of the antecedents of the man who offers himself as her life mate. Each is to calculate the modifying influences of the other on the possible offspring of both.

The Bible and Nature unite in teaching us, from the *inevitability* of heredity, that the power of evil is to power of evil as that of "three or four" to "the thousands." Let no man, therefore, do himself or his heavenly Father the injustice of dwelling with desparing emphasis on "visiting the sins of the fathers upon the children unto the third and fourth generation," but cheer his heart by the remembrance that to counteract that bitterness is the sweetness of the assurance that the heavenly Father shows "mercy" to any number of "thousands" of generations that love Him and keep His commandments.—*Charles F. Deems, in "Christian Advocate."*

THE British Association for the Advancement of Science held its annual meeting for 1887 in August at Manchester. The retiring President was Sir J. W. Dawson. The President for the year was Sir Henry Roscoe, whose speech, devoted to lines of chemistry, concluded with these words: "In conclusion may I be allowed to welcome the unprecedentedly large number of foreign

men of science who have on this occasion honored the British Association by their presence, and to express the hope that this meeting may be the commencement of an international scientific organization, the only means nowadays existing, to use the words of one of the most distinguished of our guests, of establishing that fraternity among nations from which politics appear to remove us further and further by absorbing human powers and human work, and directing them to purposes of destruction. It would indeed be well if the United Kingdom, which has hitherto taken the lead in so many things that are great and good, should now direct its attention to the furthering of international organizations of a scientific nature. A more appropriate occasion than the present meeting could perhaps hardly be found for the inauguration of such a movement. But whether this hope be realized or not, we all unite in that one great object, the search after truth for its own sake, and we all, therefore, may join in re-echoing the words of Lessing: 'The worth of man lies not in the truth which he possesses, or believes that he possesses, but in the honest endeavor which he puts forth to secure that truth; for not by the possession of truth, but by the search after it, are the faculties of man enlarged, and in this alone consists his ever-growing perfection. Possession fosters content, indolence, and pride. If God should hold in His right hand all truth, and in His left hand the ever-active desire to seek truth, though with the condition of perpetual error, I would humbly ask for the contents of His left hand, saying, "Father, give me this; pure truth is only for Thee."'"

AT a dinner at the Astor House, when Daniel Webster was Secretary of State under President Fillmore, after a period of silence which fell upon the company of some twenty gentlemen who were present, one of the guests said:

"Mr. Webster, will you tell me what was the most important thought that ever occupied your mind?"

Mr. Webster slowly passed his hand over his forehead, and in a low tone inquired of one near him:

"Is there any one here who does not know me?"

"No; all are your friends."

"The most important thought that ever occupied my mind," said Mr. Webster, "was that of *my individual responsibility to God*." And after speaking on this subject in the most solemn strain for some twenty minutes, he silently rose from the table and retired to his room.

This incident, related by Harvey in his Reminiscences, serves to illustrate the attitude of great minds towards eternal things. Great men are not scoffers. The men of flippant sneers and godless jests are men of small calibre and shallow intellect. It is *not* the wise man who has "said in his heart there is no God." It is not the great man who casts off fear and restrains prayer before Him.

AN anecdote was published many years ago, concerning the Indian Chief Teedyuscung, King of the Delawares. One evening he was sitting at the fireside of a friend. Both of them were silently looking at the fire, indulging their own reflections. At length the silence was broken by the friend, who said, "I will tell thee what I have been thinking of. I have been thinking of a rule delivered by the author of the Christian religion, which from its excellence, we call the Golden Rule."

"Stop," said Teedyuscung, "don't praise it to me, but rather tell me what it is, and let me think for myself. I do not wish you to tell me of its excellence; tell me what it is."

"It is for one man to do to another as he would have the other do to him."

"That's impossible; it can't be done," Teedyuscung immediately replied. Silence again ensued. Teedyuscung lighted his pipe and walked about the room. In about a quarter of an hour he came to his friend with a smiling countenance, and taking the pipe from his mouth, said, "Brother, I have been thoughtful of what you have told me. If the Great Spirit that made man would give him a new heart, he could do as you say, but not else." Thus the Indian found the only means by which man can fulfill his social duties.

IT is a remarkable fact that Sir Isaac Newton, in his work on the prophecies of Daniel and Revelation, said that "if they were

true, it would be necessary that a new mode of traveling should be invented." He said that "the knowledge of mankind would be so increased before a certain date or time terminated—namely, one thousand two hundred and sixty years—that they would be able to travel at the rate of fifty miles an hour." Voltaire got hold of this, and, true to the spirit of skepticism of all ages, said: "Now, look at the mighty mind of Newton, who discovered gravitation! When he became an old man, and got into his dotage, he began to study the Book called the Bible; and, it seems, in order to credit its fabulous nonsense, we must believe that the knowledge of mankind will be so increased that we shall be able to travel at the rate of fifty miles an hour. The poor dotard!" The self-complacency of the philosophic infidel made his friends laugh. But if he should get into a railway train, even a skeptic to-day would have to say, "Newton was the philosopher, Voltaire the dotard."

SIR MONIER WILLIAMS, professor of Sanskrit at Oxford, an earnest Christian as well as a renowned scholar, says, "it requires some courage to appear intolerant in these days of flabby compromise and milk-and-water concession," but "Christianity cannot be, must not be watered down to suit the palate of Hindu, Parsee, Confucianist, Buddhist or Mohammedan; and whosoever wishes to pass from the false religion to the true can never hope to do so by the rickety planks of compromise, or by help of faltering hands held out by half-hearted Christians. He must leap the gulf in faith, the living Christ will spread His everlasting arms beneath him, and land him safely on the Eternal Rock!" The same unequivocal stand should be taken with all at home who hope to serve the world and Christ. "There is much rubbish" in our day, as in the time of Nehemiah. Uncompromising fidelity to the truth as it is in Jesus is an imperative necessity.

Now it is a fact, well-known and beyond dispute, that every animate or inanimate structure responds to some chord or note of music, called, I believe, the *dominant*. We have all felt some building vibrate in unison with the pulsation of some note of a

musical instrument ; we have felt "creepy" shivers run through us as some musical chord is sounded. It is well-known that animals are strangely affected by certain harmonies. Some day, when civilization has advanced, I believe that these evidences of psychological structure will be better understood. It will be recognized that vice and virtue are in accord with different harmonies, and yield to the power of different dominants ; and, when once the classification is made, and the disclosures of the dominant understood, then the extent and influence of the dominant will be a psychological test to define the character and ruling passions of men's nature, and to decide the fitness of men for the various pursuits of life, and even for life itself.—*Arthur Dudley Vinton, in the "American Magazine."*

WHEN we are told that phosphorus is necessary for thought, we are struck with the fact that it does not always produce thought, that the lowest forms of living organism require great quantities of phosphorus. Mr. Howard has suggested that if perfection of thought is due to the mere presence of phosphorus the amount of mental energy in yeast is incomputable. But the fact is that scientific research has failed to detect the slightest trace of connection between the amount of physical and the amount of mental energy.

IT is assumed—we do not know that it has ever been denied—that, as between a supernatural and a natural explanation of phenomena, other things being equal, the natural explanation must always be given the preference in science. This may or may not be true. If true, will some of our correspondents point out the reason why?

MONTHLY MEETINGS.

BY THE SECRETARY.

THE regular monthly meeting of the Institute was held in its rooms, No. 4, Winthrop Place, Thursday, October 6, at 8 P.M., the President, Rev. Dr. Charles F. Deems, being in the chair.

The devotional exercises were led by Rev. William W. Knox of Bayonne, New Jersey. The minutes of the last meeting were read and approved.

The Secretary read extracts of letters from members of the Institute; among others, the following:—Hon. Thomas F. Bayard, Secretary of State of the United States, writes: “I hold it to be great honor that the use of my name can be supposed to add influence to such a cause.” Rev. F. M. Dimmick, Los Angeles, California, writes: “I notice that you state that ‘what the Institute specially needs is an endowment of \$20,000.’ Enclosed you will please find a draft on New York for \$100—my mite towards the endowment.” Rev. Dr. Isaac S. Hopkins, President of Emory College, Oxford, Georgia, writes: “My brief sojourn at Key East is among the pleasantest recollections of my life. I shall always think of the Summer School as a place where one may talk what philosophy he believes, without offence to the preachers; and may preach the simplest gospel he knows without offense to the philosophers; and may so surrender himself unhesitatingly to his fullest conception of religious truth.”

The following names of new members were announced;—

Professor John T. Duffield, D.D., Princeton, N. J.; Professor Alex. T. Ormund, Ph.D., Princeton, N. J.; Thomas Hill, D.D., LLD., formerly President of Harvard University, Portland, Me.; Wm. S. Black, D.D., Raleigh, N. C.; Daniel O. Eshbaugh, B.S., Monclair, N. J.; Emmett D. Nichols, Esq., Wilkes Barre, Pa.; Rev. Wm. R. Richards, Plainfield, N. J.; Rev. Wm. W. Clark, Brooklyn, N. Y.; H. C. Farrar, D.D., West Troy, N. Y.; Mrs. Wm. F. Thompson, Mason City, Ill.; Dwight R. Burrell, M.D., Canandaigua, N. Y.; Mr. Wm. M. R. French, Chicago, Ill.; Rev. Henry A. Starks, Albany, N. Y.; William Griffin, D.D., West Troy, N. Y.; Mr. John S. McIntyre, Maquoketa, Iowa; Rev. Herndon Tuttle, Wilmington, N. C.; Mr. Joseph Hillman, Troy, N. Y.

The President being called away, Rev. Dr. Howard Crosby was called to the chair for the rest of the evening.

The regular paper of the evening was by Rev. Joseph G. Van Slyke, D.D., of Kingston, N. Y., whose subject was “Tri-

chotomy." After the reading of the paper, remarks were made by Dr. Crosby and Mr. Wilder.

On motion by Rev. Edward M. Deems, seconded by Dr. Turner, it was resolved, "That the thanks of the Institute are due, and are hereby tendered to the author for his able and interesting paper, and that a copy be requested for publication in *CHRISTIAN THOUGHT*." The meeting was then adjourned.

The regular monthly meeting was held Thursday evening, November 3, 1887, in the Lecture Room of the University Place Presbyterian Church (Rev. Dr. George Alexander, pastor), New York, the President, Rev. Dr. Deems, being in the chair. The devotional exercises were conducted by Rev. Dr. John M. Worrall. The minutes of the last meeting were read and approved. It was announced that the next lecture would be given by Rev. Dr. George S. Strobridge, of Yonkers, N. Y., on the first of December.

The following names of new members were announced:—

Rev. Fred. S. Root, Auburn, Me.; Supt. P. L. Groom, Greensboro, N. C.; Rev. Geo. W. King, Centerville, R. I.; Col. William Johnston, Charlotte, N. C.; Prof. Richard Owen, New Harmony, Ind.; Rev. Joel T. Gibson, Eatonton, Ga.; Prof. George Huntington, Northfield, Minn.; Rev. S. R. Murray, Washington, D. C.; Rev. George T. Hulst, Brooklyn, N. Y.

The regular paper of the evening was by Prof. Robert L. Dabney, D.D., LLD., of the University of Texas, on "Monism." In the absence of Prof. Dabney, the paper was read by President Deems, who introduced it with some remarks concerning the learned and honored author, who is considered one of the "ablest thinkers of the day." The discussion which followed the reading was conducted by Rev. Drs. Worrall and Deems, and Mr. Wilder.

The meeting then adjourned.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 71 Bible House, New York.]

“THE SCIENCE OF THOUGHT,” by F. Max Muller, New York: Chas. Scribner’s Sons. Two volumes, price \$4. The object of this work is set forth in two sentences on the title page: “No Reason without Language. No Language without Reason.” No book can appear bearing Professor Muller’s name without attracting the attention of the world of culture. As early as 1764, Süssmilch maintained the impossibility of language without thought, and thought without language. The whole matter seems settled by the saying of a German often quoted: “I will believe that brutes have reason when one of them tells me so.” Prof. Muller’s learning and ability are brought to bear to prove that “What we have been in the habit of calling thought is but the reverse of a coin of which the obverse is articulate sound, while the current coin is one and indivisible, neither thought nor sound, but words.” In the course of his great argument the Professor makes review of the philosophical systems of Mill, Locke, Kant, Lotze, Hegel, Schleiremacher and Scopenhauer. He maintains that he is an evolutionist, while criticizing Darwin and writing thus, p. 89, vol. I.: “If evolution undertakes to teach that everything can become everything, it would take away with one hand what it has given with the other.” But that is precisely what evolution does teach. And then he writes, p. 91, vol. I.: “The theory of evolution to which I hold, and which seems to me confirmed more and more by every discovery that has lately been made in the growth of nature, and in the growth of the human mind as represented in language is this, that evolution in both starts from distinct beginnings and leads to distinct ends. *Ex aliquo fit aliquid.*” But that is precisely the doctrine of development, and not of evolution, which knows

nothing, and can know nothing of either "*distinct* beginnings" or of "*distinct* ends." The Professor holds that only those animals have the power of ratiocination, and therefore of speech or of speech and therefore of reason, who have the *mental tubercle*. This tubercle has nothing to do with mind, the adjective not being derived from *mens*, mind, but from *mentum*, chin. "It is, in fact, a small bony projection or excrescence, in which the muscle of the tongue is inserted." (I. 83.) He tells us that in the skull discovered in 1866 in the cave of La Naulette, Belgium, the mental tubercle is absent, and states the argument of Professor de Mortillet to the effect that since speech is produced by the tongue, whose movements are effected mainly by the action of the muscle inserted in the mental tubercle, which is essential to the possession of language, and this tubercle was absent from the La Naulette skull, therefore its possessor was incapable of articulate speech. Granted: but what else does that prove? Certainly not that man could not always have been rational because *one* man could not speak. But this is the method of reaching generalizations to which certain evolutionists are addicted. The owner of the La Naulette skull may have been the solitary human being on the globe at the time he died, who was destitute of that natural small projection in the chin called the mental tubercle. What proof would that be that man was not always rational in the sense of either *rationalis* or *racionabilis*? The book tempts to larger notice than our space grants. Prof. Muller is never dull. Almost every page is full of suggestive and valuable matter. Whether the reader agree with the writer or not, he will confess that if the Professor's theory of the science of language can be established we shall have in it a positive basis for mental science.

THE ETHICAL IMPORT OF DARWINISM. By Jacob Gould Schurman, M.A., D.Sc. New York; Charles Scribner's Sons, \$1.50. This is a very important book in several particulars. It will be helpful to the most learned, and enjoyable by readers of general intelligence who have had no special training, or even study, in science or philosophy. The author has written his book in the belief that there is no theory of philosophy which

cannot be clearly expressed in the language which when used by Locke, Berkeley and Hume, was plain, transparent and unmistakable. Then the reader will find in this book perhaps the clearest statements of Darwinism furnished in our late literature. He will enjoy a style which is free from dogmatism, always judicially fair, and readily understood. He will find a forceful argument for the proposition that the ethical is a primal and underived quality of men's nature. We heartily commend this book to our readers.

“GENESIS AND GEOLOGY” is the title of a thin volume, 142 pages, by Rev. N. Collin Hughes, D.D., and is published at Choconinity, N. C., a publishing centre not generally known, we fancy, to the great body of bibliopoles. The book is thin only in paper; it is thick in brains and learning. It is an unusually able attempt to reconcile Genesis and Geology. As a general thing we have not much approved such attempts on the part of Christian thinkers. (1.) We are not so much concerned in the matter as “the party of the other part.” If Genesis and geology do not agree, so much the worse for geology. (2.) If they do agree now, they probably will not a quarter of a century hence, just as the geology of to-day is so unlike that of twenty-five years ago that they have only the family likeness of very distant relatives. In Genesis we are on “bed rock,” in geology we are scrambling up a hill of loose stones, that change at each of our movements and give us a new tumble. A small boy of our acquaintance, much given to the use of large words, as he saw the streets of his native city torn up and the buildings torn down, said to his accompanying kinswoman, “O grandma, won’t New York be exquisite when it is finished?” So we exclaim, “Won’t geology be exquisite when it is finished?” Dr. Hughes’s book will do good service in giving a very clear exposition of what Genesis really does teach regarding creation, and in showing that what has been agreed upon among the most sensible of the geologists, such as Profs. Dana and Labonte, is just what Geneses taught in the beginning, so far as it can be understood by the most sensible Biblical scholars. He has thus laid the geologists under a great burden of gratitude. We must add that

we are sorry this very interesting and able book is not published under auspices promising a wider circulation, which it certainly deserves.

“THE SCIENCE OF POLITICS,” by Walter Thomas Mills (Funk & Wagnalls, \$1.50), is very far from being the heavy thing which many people suppose science to be, and many other people suppose politics to be. It is a very healthy sign that Christian people are turning their attention to the philosophy and ethics of politics. In America it is indispensable that all men should know something more of politics than the partisan newspapers and the appeals of demagogues furnish the people. We commend Mr. Mills’ book as a valuable contribution to the laudable efforts now made to prepare American sovereigns for the discharge of their royal duties.

“THE HISTORY OF THE CHRISTIAN CHURCH,” by Dr. George Park Fisher, of Yale University (Charles Scribner’s Sons, 8vo., 701 pp., \$3.50). The scholarship of Prof. Fisher is united with a philosophical intellect and a fair spirit. He would not put his name to what was not good reading. He has aimed at two things: to connect the history of the Christian Church with contemporaneous secular history, and to present a full and fair survey of the history of theological doctrine. The author has avoided pedantry entirely, and in a large measure freed himself from historical and theological bias. He has omitted footnotes. There are maps and a good index. Altogether, this is just such a book, and we should confidently recommend to any head of a Christian family, to be placed in the home-library. It would probably be all that would be needed in its department.

“THE STORY OF THE PSALMS,” by Henry Van Dyke, D.D. (Charles Scribner’s Sons, 12mo., 259 pp., \$1.50). In this dainty volume its author endeavors, in eighteen papers, to bring as many of the Psalms in one sacred book into close connection with the men who wrote them, believing that that course will not lessen our reverence, and will increase our love. This volume will be a profitable addition to the Christian’s closet-library.

CHRISTIAN THOUGHT.

PHYSICAL THEORIES OF MIND.

[A Lecture delivered before the American Institute of Christian Philosophy, August 22, 1887.]

BY REV. JAMES T. BIXBY, PH.D., YONKERS, N. Y.

“THE proper study of mankind is man,” says Pope.

While, undoubtedly, it is not the only study to which man should give himself, it is a study which is indispensable to a proper grounding of all others. It is a study which presents a decisive test for all the remaining sciences.

When Auguste Comte, some thirty years ago, wrote his all-embracing system of Positive Philosophy, he recognized this crucial character of human Psychology, and enounced that when his Positive Philosophy should be consummated, Psychology would become part and parcel of Physiology and a recognized member of the natural domain.

Our modern students in this line are doing their best, by assiduous research and adventurous theorizing, to make the prophecy a fact.

“Modern Psychology,” says Sully, in his work on “Sensation and Intuition,” “tends to make it a *postulate* that all *mental* phenomena are contained *potentially* in the fine tissues of the brain.”

That secret instinct of humanity that makes the unsophisticated man look behind the shifting procession of sounds and sights, pleasures and pains that pass before his mental eye, to discern a real and abiding self, different from this passing scenery of his conscious states, though ever present with them,—is brusquely declared, by our modern theorizers, to be a foolish illu-

sion. To Prof. Huxley, the soul is but "the collective name for the different functions of the nervous organism"; and "Thought is as much a function of matter as motion is."

Dr. H. C. Bastian similarly, in his recent work upon "The Brain as an Organ of Mind," vehemently protests against the notion that mind is the name of something that has an actual, independent existence. He holds that "conscious states are dependent upon the properties and molecular activities of nerve-tissue, just as magnetic phenomena are dependent on the properties and molecular actions of certain kinds or states of iron."

Not only in the works of these authors, but in those of many of the leading scientific writers of the present day, such as Dr. Maudsley, Tyndall, Büchner, Vogt, Bain, Wundt, Taine, Ferrier, we find consciousness treated as something inseparable from organized matter and subject to physical laws.

Now it is unnecessary to point out to this audience that, if this *physical* view of the nature and action of the mind be true, its effect upon all our philosophical, religious, and even practical ideas and conduct is most momentous. It would revolutionize, in time, all our theology and all our ethics.

It deserves, then, a careful examination.

What, in the first place, is the evidence for this?

I. Varied and curious in its illustrations as it is, it reduces itself to an elaborate and detailed exposition of the admitted truth, that the mind is closely dependent on its organism. It is an array of the facts which the anatomists and psychologists have accumulated, showing that, *e. g.*, if we destroy or injure certain material parts, we remove or lessen in the same proportion the corresponding sentient, motor, or mental powers; that if we withhold certain physical supplies of food or heat, we reduce correspondingly the mental activities. The materialists urge that the powers of the mind are proportionate to the size and perfection of the structure of the brain; that every sensation or thought is attended with a certain expenditure of chemical or thermal energy or disintegration of tissue in the nervous system; and that, in short, all mental changes follow and are dependent upon corresponding physical changes, and are therefore simply their effects.

Now, this dependence of the one series on the other, and their

invariable concomitants, I freely admit. But it by no means follows from this that the conscious states are but *effects* of the physical series. This close correlation between the two and accompaniment of the one by the other, is equally well explained by supposing the nervous system the instrument through which the soul acts. By lessening or increasing, spoiling or improving the keys and tubes of an organ, you vary in the same direction and degree the music of the organist; by stopping the supply of air, you prevent him from uttering a sound. Yet this does not show keys, tubes, and air to be the only things concerned in producing the music that a Rubinstein is extemporizing. They are merely the conditions and instrument. The active agent is the player with music in his soul.

Where a certain antecedent series is followed by a consequent series, more or less similar to the first series, the second may be considered the product of the first; but when the laws and properties of the second are radically different from the first, it is absurd to look on it as a product of that first.

Now, matter and mind stand to each other not in the first relation, but in the second.

The properties of matter are extension, divisibility, inertia. Consciousness, on the contrary, is without extended magnitude, is a spontaneous force, an indivisible unity.

Matter has such laws as attraction, repulsion, cohesion, chemical affinity, etc., which, on analysis, reduce themselves to modes of motion of material particles, invariable in their action.

Mind has quite a different set of laws—memory, habit, judgment, association, inference, free choice, moral obligation. These laws are none of them modes of motion nor invariable regularities. They all require a higher agent than the motions or reactions of material particles can explain. Even such a simple law of sensitive life as to avoid the painful and seek and repeat the pleasant, requires a higher power than material reaction to explain it. No inanimate body exhibits it. “Out of nothing, nothing comes,” says the old maxim. If we have, at the start, only particles of unintelligent matter, it is hopeless to expect by any combination of them, however ingenious, to get intelligence. Rearrangement will, of course, give more complex manifestations of

the original properties; but they must always be in the same realm of existence. No more can be evolved than was involved in the beginning. We cannot, *e.g.*, as abundant experiments prove, get the living by putting together the non-living. Unless some living germ is present, the materials remain lifeless.

Now feeling, will, intelligence, are all of a quite different order of existence from that of atoms and their motions, and higher than them, and cannot be their product.

II. The objections that I have here briefly indicated have shown themselves too strong for the older materialism, formerly in vogue, to hold its ground, and the modern doctrine of the *transformation* of energy has been called in to its aid. "Of course," says the materialist, "consciousness is not a product of the same kind as the matter which produces it; it is a transformed product. We have in it simply a more striking instance of that transmutative process by which a current of electricity, passing through a carbon filament, is changed into light, or by which the electricity was obtained by another transformation from the rotation of the magnetic coils of a dynamo-engine. In the same way, the mental phenomena are the *transformations* of the physical forces liberated in the brain by the interaction of its parts.

Yes. It is evident that, if mental phenomena are to be regarded as effects of matter, they must be *transformed* effects.

Let us see, then, if they conform to the ascertained laws of the transformation of physical energy. Now, the chief of these, as you know, is the law of the conservation and correlation of energy. If thought is a transformation of material force—the old force in a new form—it must obey these fundamental laws, *viz.*:

"The sum total of energy remains unchanged. What disappears in one form appears with the same quantity of energy in the transformed effects. What appears in the new form of thought, disappears in the same quantum of energy from the physical world."

Let us, then, examine this transformation theory at the bar of science.

Suppose we begin with the first half of this law of conservation and correlation, *viz.*, that what disappears in one form reap-

pears, in the same quantity of energy, in the new form or forms.

According to this, the resulting mental state must correspond in its intensity to the amount of physical force received by the consciousness.

Every mental state must have its physical equivalent. Tyn-dall, Spencer, and Bain all recognize this as a necessary consequence of the theory. Bain does not hesitate to say, "There is a definite change of feeling, a uniform accession of pleasure or of pain, corresponding to an elevation of 10, 20, 30 degrees of heat. So for each set of circumstances there is a sensational equivalent of alcohol, of odors, of music, of spectacle."

Now, this is in accordance with theory, but it is not in accordance with the facts of observation. What is more noticeable than the widely different effects which the same physical stimulus, sound, odor, sight, or touch, has upon different people, or even upon the same person, according to the different mental state that he is in. While a passing shadow or a whisper conveying some startling news may throw mind and body into startling convulsions, on the other hand, a cannon discharge or a clap of thunder, when the student is absorbed in thought or the soldier full of the excitement of the battle, may produce hardly any effect upon him. A morning bell wakes us or not, just according as we know we ought to obey its signal or need not do so. Is it not plain that what determines the strength of the mental impression is not the amount of incident physical force, but its intellectual significance to us?

It may be answered that the discrepancy here is due to certain associations and nerve connections which have made certain sounds and sights, though slight in themselves, the hair-triggers that set off great explosions.

Let us take, then, the simplest possible reactions of sense to stimulus, when all intellectual sources of perturbation are as far as possible eliminated. The German and English psychologists have made, in these latter years, multiplied experiments of this sort. They have, of course, found many scientific regularities and averages. Nevertheless, in regard to the point under discussion, the correlation between the stimulus and the sensation, their

experiments have shown so conclusively the *disproportion* between the increase of the stimulus and the increase of the sensation, that they have even characterized this disproportion as a physiological law. *E.g.*, if we wish to increase a given sensation one-fourth, we must apply a stimulus—not one-fourth stronger, as the physical law of correlation would suggest, but we must employ a stimulus considerably greater than this. And moreover, as the feeling to be produced is one more and more intense, the increment of initial stimulation must be raised to a higher and higher *excess* above the direct ratio. A simple illustration is the fact that while we can easily recognize slight differences in weight when the weights are small, it grows more and more difficult as the weights compared grow heavier and heavier. Fechner and Weber have essayed to reduce this general fact to the law that sensation increases *not* in direct proportion to the stimulus, but to the logarithm of the stimulus. Nevertheless, many exceptions remain, in the various senses, which are found irreducible to any general law.

A second very noticeable disproportion between the stimulus, or physical force received, and the sensation, or supposed effect, is that observed where the *same* stimulus is *repeated*. After a few times, the same stimulus does *not* produce the same vividness of sensation as at first.

Still, a third instance of disproportion between stimulus and sensation is that afforded by *alternating* or *contrasting* the stimuli. Sweet after bitter always tastes sweeter than sweet after sweet. High and low *notes* in succession, emphasize one another, and seem to be farther apart than they really are. Similarly, two adjacent colors in the field of vision, as Helmholtz has shown, tend to appear in *greater intensities* along their *common boundaries*, where they contrast with one another, than in the remoter parts, where the contrast is less.

These are but a few familiar groups of that discrepancy between the physical antecedent and the sentient consequent, continually to be noticed in all careful psychological experimentation. This discrepancy, it seems to me, points to an indeterminable factor, an agent not reducible to physical laws and regularities—the spiritual subject, in fine.

If it is objected that it is demanding too much to ask for the exhibition of *exact equivalences* between the incident physical forces and the mental states into which they are transformed, I will limit my demand to that of being shown in what is called the new form of the incident physical energy, when converted into consciousness, the *fundamental qualities* of all physical energies, viz., *extension* and *measurability*. If thought be only a mode of motion, certainly it must possess these universal and essential qualities of all other modes of motion, however curiously they may have been transformed.

Now, in point of fact, it has to be admitted on all hands, that thought has no *extension*, and that pure mental states cannot be *measured*. All that is measured in psychological experiments is the impression on the organ of sense or the time or force required for certain organic movements. But pure thought is no measurable quantity, any more than it is extended. Let me quote, on this point, from one whom no one will suspect of speaking out of a prejudiced mind, Mr. John Fiske:

"By no scientific cunning of experiment or deduction can thought be weighed or measured or in any way assimilated to such things as may be made the actual or possible objects of sense perception" (p. 41, "Unseen World"). I might quote to the same effect from Dr. Barker, President Barnard of Columbia, and M. Gavaret, the French biologist.

The *first* part of the law of conservation, viz., that what disappears as physical force appears in an *equivalent* quantity of mental force does not, thus, appear to hold good.

Let us see, then, if the *latter* half of it holds good and verifies the transformation.

Does that which appears as mental energy, disappear as physical energy? According to the transformation theory, as the current of physical thought circles through the organism, it shifts from form to form, and that same current of force which just now was a vibration of an ear-drum in answer to the door-bell and next a mode of motion in the auditory nerve, now takes on a mental form and becomes a thought, and then, as the current passes down the motor nerves and sets the muscles of the legs in motion to go to the door, it changes back into a physical force. Now, if

consciousness be a link in this chain, it must then, like the other links, appear at the expense of its predecessor. Consciousness, *i. e.*, can be manifested only at the cost of a corresponding physical energy, consumed by it; and conversely, when consciousness disappears, it must liberate to its successor, *i. e.*, to the physical world, the energy or motion it has held for a brief moment. Otherwise, the law of conservation and interaction of energies would not hold good.

Now, as a point of fact, do we find such a state of things?

On the contrary, the scientific men who have examined this decisive point, are compelled to say that we do *not*.

For a given molecular motion set up, there will be the same mechanical equivalent, whether consciousness arise or not.

"Physicists," says Dr. Bastian, "have not been able to show that there is evolved during brain action an amount of heat, or other mode of physical energy, *less* than there would have been had not the sensations been felt and the thoughts thought."

If consciousness be evolved, it is not (the scientists tell us) at the *expense* of a single oscillation of a muscle disappearing from the object world.

"Does a given quantity of motion disappear," asks John Fiske, "to be replaced by an equivalent quantity of feeling? By no means," is his answer. "The nerve motion in disappearing is simply distributed into other nerve motions in various parts of the body. Nowhere is there such a thing as the metamorphosis of motion into feeling, or of feeling into motion." (Essay on Darwinism, p. 73). Similarly, Alexander Bain, in his "Mind and Body," p. 131, declares that "There is, in fact, no rupture of nervous continuity." Instead of the chain of physical energy being interrupted by a mental link, into which the physical energy has, for the moment, metamorphosed itself, there is, Bain declares, "an *unbroken material succession*," accompanied by mental processes.

The force of these facts is so strong that later expositors of the physical theory of mind, such as Tyndall, Huxley, etc., have been compelled to reject the transformation hypothesis, and instead of regarding the physical forces as metamorphosed into the mental, regard the two series of events, the physical and the

mental, as going on in parallel circuits, inseparably accompanying one another. Though invariably attendant, one on the other, proceeding side by side, nevertheless the physical motion no more vacates the physical circuit to pass over into consciousness, than consciousness changes into a physical motion. When brought to look the question of the *causal* connection between molecular motions and states of consciousness straight in the face, Prof. Tyndall finds "a chasm, impassable to thought, between them," and answers, "I do not see the connection, nor have I as yet met any one who does."

This second theory, then, viz., that mind is a *transformed mode of physical force*, is as unable to meet the scientific requirements of the case as the older and cruder materialism.

III. In deference, then, to the law of the conservation of force, thought must be recognized *not* as a proper physical energy, but simply as a *parallel current*, a *by-product*, as Prof. Tyndall has called it. It is not itself any *active energy*, but a *passive attendant* of the atomic motions in the brain—a sort of *incandescence* of the *cerebral* fibres, like the glow of the carbon filaments in an Edison electric light. Man is thus made an automaton; a living and thinking automaton, to be sure, but just as helplessly subject to the play of his internal machinery and the physical strokes incident upon his keys as Vaucausson's mechanical duck.

Such is the third form of the physical theory that the men of science have given us in these later times by which to explain the mind.

But the more this theory of consciousness—as a mere surplus by-product, a parallel circuit—is examined, the more unsatisfactory it has been found. It is unsatisfactory to those of materialistic tendencies because it leaves an impassable gulf between matter and mind. If consciousness be destitute of physical energy and incapable of acting on matter, the theory is as dualistic as Descartes'.

In the next place, by making consciousness a *superfluous* thing, it comes in conflict with the Darwinian theory, which is now becoming so generally accepted by scientific men. The whole Darwinian theory, as you know, is based upon the principle that no

function of a living creature is or has been useless. If feeling and thought, then, are but passive attendants and superfluities, why have they been called into existence? Why is their addition to the animal and human machine so invariable; and why do they increase in degree of development precisely as the work of the living machine grows more complicated? Certainly, it is most incredible that the most marked characteristic of higher orders of beings is useless; that Parthenons would have been built and oratorios been composed and constitutions written, and electric lights invented, just as surely and just as perfectly had no man known what he was doing, or ever done otherwise than as the stimulus of physical changes determined him to do.

Once more, this theory of mind as a parallel circuit and passive attendant to the changes of matter is unsatisfactory philosophically. For philosophical analysis, instead of finding all causative agency limited to *matter*, as this theory demands, *fails* to find *any causative* agency in *matter*, except such as is *inferred* from the *analogy* of the causative power by which we ourselves set matter in motion. In external nature we never see any force exerted by one element on another. We see merely the succession of one change to another. That there is *causative energy* in the antecedent, producing the consequent, is an idea which the *mind* reads into the event, because of its own inward experience of effort in producing the changes which it itself plans and strives after. To suppose that the mind, from which alone we derive our idea of causality, to be nevertheless always a mere passive attendant, would be to commit the absurdity of sacrificing what we *directly know* to the demand of what we only *indirectly infer*.

In spite, therefore, of the prestige given to this theory of mind, as a passive parallel attendant on material changes, it has been unable to hold its ground.

IV. As the older and cruder materialistic theory, and next, the transmutation theory, and then, the theory of parallel accompaniment, have thus successively broken down, the more intelligent men of science have of late earnestly sought some new physical theory, which, while free from the defects of those that I have reviewed, would yet explain consciousness on mechanical principles.

This has been found—it has lately been claimed—in the *monistic* theory. According to this fourth theory, consciousness is not some finer matter, nor product of matter; nor yet a transformation of physical energy; nor a parallel circuit uselessly attendant on the atomic changes; but it is simply the *subjective* aspect of these changes.

“That which we call soul,” says Wundt, “is the *inner* being of the same unity which we *outwardly* perceive as the *body* belonging to it.”

The conclusion of Bain is similar.

“Perception, memory, reasoning, are the subjective side whose objective side is a nerve vibration or a discharge of physical force. We can state the equation as well in terms of these as in terms of those.”

Similarly, George H. Lewes declares that “a mental process is only *another aspect* of a physical process.” There is no more difference between a nerve vibration and the accompanying sensation, Lewes maintains, than between the concavity and convexity of one and the same arc. And to complete the theory, Prof. Clifford tells us that not only has each cerebral molecule or nerve-cell its mind-side, but every atom of ordinary matter is mind-stuff—*i. e.*, the raw material of mind, endowed with a certain measure of sentience, or at least potential sentience, according to the circumstances of the body in which it happens to be.

Now, this monistic theory has evident advantages over the materialistic theory in either of its forms. It does not essay to produce the conscious out of the unconscious; but makes the union of the sentient and the bodily universal, and the origin of the conscious, a development out of the dormant elements of consciousness united in the brain. Moreover, there is no parallelism of two separate streams to be explained, but there is just one stream of events. The consciousness and the cerebral motion are really but one thing, and are double, as Lewes says, only in relation to our apprehension, just as the tremor of a harp string is to the eye a motion, and to the ear a sound.

The monistic theory has therefore spread rapidly, and is at first thought exceedingly attractive. Prof. Clifford, indeed, in his enthusiasm, even hailed it as “not merely a speculation, but

a result to which all the greatest minds, that have studied this question in the right way, have gradually been approximating for a long time."

Besides the writers whom I have mentioned as having adopted it, I may add the names of Spencer and Taine, the latter of whom, in fact, was one of its earliest and most brilliant expounders.

But when we examine the monistic theory more closely we find that its explanation is more verbal than real, and that it brings us only into deeper mysteries.

The knot of difficulty that we would like to untie is the co-existence in the thinking man of these opposite attributes—sentience and materiality.

Now, the monistic theory simply takes these two opposite phenomena, whose co-existence in the whole is such a knotty problem, and puts them together into every smallest part of that whole. Instead of *untying* the knot, *i. e.*, it shows us merely that the string is *knotted all the way through*. Dualism is objected to because of the difficulty of supposing unextended, immaterial mind to dwell and work together with extended, material body. But if there is really a difficulty here, surely it is increasing that difficulty, not lessening it, to make the brain a whole colony of such double-sided beings, and to put these same inconsistent attributes plumply side by side into every one of its molecules.

While it may be a *fact* that the human mind in its weakness is apt to overlook inconsistencies and contradictions, when, by much division, the phenomena are made very small, and when they are at last reduced to infinitesimal magnitudes, will ignore them altogether, it is, nevertheless, unworthy of any true philosophy craftily to take advantage of this mental defect, or to fancy that such methods of *minimizing* a phenomenon at all *explains* it.

Pure matter, the monists see, cannot explain the production of consciousness. So they remodel the idea of matter and add to it the properties of sentience and nascent reason, and think that, by this hybrid substance, the development of mind is made plain, and we have in this *tertium quid* something that will

account both for the brutishness of the idiot and the loftiest achievements of the genius and the seer.

The monists forget that attributes cannot be *glued* together at pleasure. Those which are *incompatible* will fall apart again as often as the dry light of reflection strikes them.

Let us think for a moment what this monistic theory involves.

If it be true that "what is objectively a change in a superior nerve-centre is subjectively a feeling and the duration of it under one aspect measures the duration of it under the other," as Herbert Spencer states it, *then*, there being really but one and the same thing to act or be acted upon—its laws of action, from whichever side viewed, must be really the same, just as (to recur to Lewes' illustration), the laws of curvature of an elliptic arc are the same whether viewed from the convex or the concave side. On this theory, then, the laws of consciousness that we learn by subjective introspection, and the laws of matter that we learn by objective observation and experiment should be the same. Both the Hegelian who believes that by logical development of the laws of thought he can reconstruct the universe, and the materialist who holds that the laws of bodily masses and atomic motion and pressure give us the sum total of reality in consciousness are right; and their results ought to be one and the same. But every one knows that they are *not* the same; that they are inevitably divergent and contradictory. The more closely we compare them, the stronger we find these contrasts.

1. The laws of matter relate to quantity of substance, to form, extension, and location or motion in space. The laws of mind relate to none of these things, but to unextended qualities, such as intensity or weakness; clearness or obscurity; slowness or quickness; likeness or unlikeness; logical coherence and the various predominance in them of the feeling, the knowing, or the willing element.

2. In the material world, changes occur according to laws of physical preponderance of energy in line of least resistance. In the mental world, however, we behold the laws of intelligent discrimination and selection, and resolute progress according to

a previously adopted forelooking purpose, overruling the course of mere chance preponderance. In the physical world, *similar incident* forces produce similar *results*. In the mental world, the results *vary* according to the attention, feeling, habit, or pre-existent purpose or choice of the mind.

3. In the physical world, interaction takes place according to conditions of juxtaposition and local connections and diffusion. Heat or electricity, *e.g.*, cannot jump to and fro, between the most distant and antipodal points, but must proceed from one point to the next contiguous, taking each in turn, as they spread abroad.

But in the realm of mind, we find the laws of interaction (or, as they are technically called, the laws of association of ideas) to be of quite a different character. *Ideas* are associated both by similarity and dissimilarity, are recalled with greatest ease both when they have occupied the mind the longest, or contrariwise, when most recently introduced; when contemplated with strong emotion, or when the will has been determinedly fixed upon them. Thought pays no respect to the physical laws of interaction that we have mentioned, *viz.*: juxtaposition and local neighborhood, but *does* jump across seas and continents to the most opposite points—following contrasts quite as much as likenesses. *E.g.*, the ringing of a village bell carries your thought to the home of the poor sexton who used to ring it, but now lies dying because he had no rich friend to send him on the voyage necessary to cure his consumption. That recalls Mrs. Brassey's yacht voyage round the world; that, some flowers of rare odor in the Pacific described by her; this, an equally rare fruit described by another traveler which you have always wished to taste; and this your own plain dinner in the kitchen below, which you have quite forgotten to enrich with some special dishes that would make it fit for your friend from the city, whom you expect soon to shake hands with. Thus, in a twinkling, your thought has been round the world, and the line of association has passed through the realms of every sense, hearing, sight, smell, taste, and touch.

In the realm of thought, the transitions have all been close and logical. But according to the monistic theory, the cerebral

current must have rushed back and forth between the local seats of the various senses and organs in the most zigzag course imaginable. The mental series is entirely coherent; the physical series, a perfect medley. Is it really to be believed that the series of conscious states so rationally connected was simply the subjective side of a physical current which thus zig-zagged about the brain; and that there was really only one process—one identical thing in these two opposite series of phenomena?

It seems to me that the laws of association that I have mentioned, such as those of contrast, habit, freshness, the presence of strong feeling or fixed purpose, are altogether too opposite to those of physical intercommunication or any form of mechanical connection of the brain centres or cells for the two phenomena to be regarded as but inner and outer aspects of one and the same process.

4. A little reflection upon the laws of *sensation*, even, leads to the same result. In physics, one of the most fundamental and invariable laws is the law of the mean resultant or the parallelogram of forces.

If two different forces act upon one point, or two different motions upon one body, the resultant will be a mean, intermediate between the two. As far as these motions are contrasted, they tend to neutralize one another.

But in consciousness no compromise of this sort takes place. *E.g.*, the sensation of a base and a tenor sound do not melt into an intermediate note, but rather emphasize and intensify one another. The recollection of a green and a red tint do not fuse themselves into a single neutral tint, nor does the remembrance of a pleasure and pain coalesce into the equilibrium of an indifferent feeling, but they always remain distinct, emphasizing one another. It is true that small or obscure nerve vibrations or impressions upon the organ of sense, so weak or brief that they *fail*, as a distinct impression to reach consciousness, may blend their nerve vibrations and thus give rise to a sensation which is a mean resultant.

But sensations that are once felt as distinct remain distinct, and when recalled, they reappear as distinct, without any blending into a mean resultant. Otherwise, that *comparison* of the

dissimilar on which all judgment and reasoning, induction and deduction, classification and even intelligent perception rests, would be impossible. All our mental life, then, depends on this *retention* of variations and *contrasts* in their original *differences*, yet united in thought, through the unity of the subject to which they belong.

But if all the higher action of the mind is thus conditioned on the *reversal* in consciousness of the laws as to the composition of forces which rule in the unconscious realm, is it credible that these two opposite methods of action are nevertheless the action of but one and the same thing in one and the same moment?

Mr. Lewes himself admits (p. 352, "Physical Basis of Mind") that we cannot translate all psychological phenomena into mechanical terms. "Nay, we cannot even translate them all into physiological terms, nor can the laws of mind be deduced from physiological processes."

However happy a thought, then, it may seem at first to unite the peculiarities of materiality and consciousness in the unity of the mind-stuff, we find them remaining as much contrasted and incomparable as ever, and in the changes of the one we fail to find the law of the changes of the other. The union, therefore, is only an outward and artificial one, and the one series, while conditioned indeed, by the other to a very noticeable extent, is no self-evident consequent of the other. There is no evidence of identity or anything inconsistent with the separateness and actuality of the two factors, as equally real and distinct existences.

5. Such are some of the first difficulties that we find in this monistic theory. Let us now come to closer quarters with it. Is it really any explanation to say that the objective and subjective effects are two sides of one and the same process? "Why, then," as Tyndall asks, "should the phenomenon have two sides?" This is, as the Professor points out, "the real core of the difficulty."

On the one hand, if carbonic acid and water and ammonia do *not* think and feel when in the chemist's retorts, why do they when united in the cells of the brain? Or if the atoms *are* conscious wherever they are, why do they manifest their mental

properties in man and not equally in earth or brook; in the brain, and not just as much in the hair or the finger-nail?

For answer, the monists refer us to the effect of organization. All material atoms and physical motions have a *certain degree* of mentality, they say, which in the brain is wrought up into such complexity that the mentality rises into consciousness.

"A moving molecule of inorganic matter," says Clifford, in his essay on "The Nature of Things in Themselves," "does not possess consciousness, but it possesses a *small piece* of mind-stuff. When molecules are so combined together as to form the film on the under side of a jelly-fish, the elements of mind which go along with them are so combined as to form the first beginnings of sentience. When matter takes the complex form of a living human brain, the corresponding mind-stuff takes the form of a human consciousness, having intelligence and volition."

But why, and how, can organization effect this wonderful change? Are the atoms, in the beginning, conscious, and simply needing liberation, through some more propitious arrangement?

In that case each atom is a little soul, and Science must alter, fundamentally, its laws of nature. Attraction is really, as poets have fancied, the loves of molecules and repulsion their hate, and chemic unions are conscious choices, and physics must be written over in the terms of psychology. But I do not know a monist that would admit this. The tendency of all the monists is precisely the other way. Maudsley ridicules the idea as outgrown, that the relations of bodies are influenced by sympathies and antipathies, or that positive and negative electricities consciously attract or repel, or that one acid chooses voluntarily the corresponding base.

But if the atoms are not originally and individually conscious, then their mental side must be potential and embryotic merely. They have the *raw* material of mind, but it is not yet worked up to the stage when it exhibits its characteristic traits. This is the view that the monists seem to adopt. Clifford presents the mind-stuff in the inorganic atom as a simple, sensitive element or possibility, of the lowest grade, measurably inferior even to such dull sentience as is exhibited by a jelly-fish.

Now comes the problem which the older materialism never

could solve, and which I fail to see how the new monism can solve any better, viz., how can mere aggregation and connection change, in a flash, this stupid rudiment of sentiency into full-blown consciousness? A drop of water enters a brain-cell from the blood and becomes a part of its protoplasmic structure. The moment before it had only the dullest possibility of feeling. Now, presto! it engages, with its neighbors, in solving the most profound mathematical or philosophic problems of the learned professor. That the mere aggregation and rearrangement of mind-stuff particles which a little while before possessed only the rudiments of sensation can produce such a transformation, seems to me as incredible as to think that by crowding together a colony of plant-lice into a skull, you should obtain from them at once the wisdom of a Newton.

The monistic theory rests on the assumption that the assembling and arranging of a multitude of molecules will add together their many rudimentary sentiences into a total of complete consciousness, just as the many small motions or electricities of a number of natural *bodies* can be blended and accumulated into a single great force. This is treating the mind as if it were a material fluid, and as if the same composition and aggregation of forces that occurs in the physical realm occurred in the mental world.

But, as we have seen, *no such composition* of mental forces takes place. The peculiarity of sensations and thoughts is that they *retain their distinctness*, and do not fuse together either into an average or into the sum of their components.

On the monistic theory itself, we must remember, mentality is not a separable ingredient, like the juice in a vineyard of grapes, that by mutual pressure in the vat might be forced out and added together, and thus produce a great quantity of liquid with a high degree of force, from the collection of many small contributions—but *mentality*, on the monistic theory, is but an inseparable aspect or quality of its *respective atom*, the subjective side of each double-unit. It can no more be drawn out and away from its respective unit and condensed into some more intense extract, than the consciousness of a dozen men is drawn away from them and condensed into something else when they are

assembled together. The assemblage and interaction of a multitude of physiological units may, of course, so stimulate each unit as to lead each to manifest more fully its own mind side; just as the assemblage of a swarm of locusts would bring out more fully the locust intelligence and character. But if the mind in each is only rudimentary, the mind in the whole must be of substantially the same grade. To think that by merely assembling together the rudimentary sentiences of the brain atoms and putting them in communication in the skull we get as a result the intelligence of a Shakespeare, is as incredible as if the squeezing together in a bowl the several thousand members of a coral-polyp colony might produce the drama of "Hamlet." Yes. It is as absurd as to think that if a thousand archers only shoot from one arena at a given signal, they might shoot their arrows to the moon.

V. Such numerous and serious objections to the monistic theory do we find, then, in the facts of our intellectual life.

But shall we not find equally weighty objections to any other theory? and although it leaves many things unexplained, is it not the demand of the scientific as well as of the philosophic instinct to find beneath both matter and mind an underlying unity?

There are of course difficulties involving every theory. The difficulties opposed to the materialistic or the monistic theories that I have enumerated, are of a very positive and insuperable character. On the other hand, the difficulties that array themselves against the supposition of the mind, as an existence, distinct from and superior to ordinary matter, are chiefly negative. They consist chiefly in asking questions and emphasizing mysteries which only the Creator can explain, and which, on the materialistic and monistic theories, are just as puzzling as ever. These questions are such as whence came the soul, and where does it go to? how does it know when to step into the body and when step out? Who has ever seen it, and *why* is it bound up so closely with complexly arranged organisms as it is? Adopt either the materialistic or the monistic theory, and there remain just as many similar enigmas. We must follow the preponderance of evidence; the line of least logical resistance, and *that* seems to me to conduct to belief in a soul in man, distinct from

ordinary matter, whose spiritual body, however, can and *does* enter into definite correlations with the organic forms of nature.

There are positive reasons in favor of assigning a distinct and independent character to the subject of consciousness.

There is certainly a presumption afforded by the universal belief of man in an immaterial self as the subject of his conscious states. This conviction of the human mind is so general, primitive, and persistent as to deserve to be called an intuition of the human consciousness.

Now, according to the physical theory, this intuition of the mind is really but the law-determined action of a complex group of atoms, in which the laws of the world have risen into consciousness. How comes it, then, that this wonderful material aggregate, after it has succeeded in becoming aware of itself, should almost universally be possessed of such a demon of *inconsistency* as to consider that *matter* (which is all that it is, according to the theory) is quite unequal to performing of itself these characteristic operations of thought and will; and should conjure up the chimera of an immaterial spirit as its real self?

Bear in mind, if you please, that according to the theory, thought and belief are mere functions of matter, and that they develop and turn out their results by necessary law. As there is, according to the physical theory, no free will to disarrange the result, those results must be true, and according to the physical theory, that result *should* be a *native belief* in *materialism*. What a paradox—what an inexplicable contradiction (on the physical theory) that it should be the very *reverse*, an instinctive belief that our real self is something *distinct* from matter.

There is here the strongest *presumption* against the physical theory.

And in the facts of observation and consciousness as to the initiative and directive power over organic phenomena which the mind possesses, we find conclusive corroboratory evidence of the superior nature of the mind to its earthly tabernacle.

Thought has been likened by the advocates of the mechanical theory, to the music emitted by a music-box. Those who hold the spiritual view of its nature, say, on the other hand, that the

mind, though to a certain extent conditioned by its instrument, is as distinct from it as the player from his violin.

What will be the respective results in each case?

In the first case, if the music is emitted simply by the automatic action of the instrument itself, this music, as in the music-box, will *vary* simply with the conditions and circumstances of that instrument. If the mind be simply the activities of the brain pulp, an effort of the mechanical interaction of the parts and forces of the nervous organism, the line of causation must always proceed from the physical phenomena to the mental. The thought must be a passive result of the changes of the bodily organism. Not only on the materialistic theory, proper, but on the monistic theory, also, must this be the case. The only difference is, that by the monists, consciousness, instead of being an *effect* of the physical series, is its constant attendant, its inner face. Now, if a logical process is but the subjective aspect of the correlative physical change in the brain-matter, then it must be subject to that law which all matter obeys, viz., inertia. It must be passive, and be set in motion only by some external physical stimulus. The monists who have thought *through* their theory, recognize and admit this. Let me quote from the ablest American advocate of this theory, Dr. Morton Prince: "For consciousness to be present, it is necessary that each cell should be stimulated by something external to that cell. Consciousness, then, is passive, not active." * * "Any succession of ideas can only occur by reason of the neural currents, wherever originated, being reflected from one cell to another along the anatomical connections which join the cells" (pp. 94, 95, "The Nature of Mind").

"All our muscular actions, ideas, sensations, and emotions are thus," as he does not hesitate to say, "reflex; from which it also follows that they are automatic" (p. 100, *id.*).

Such must be the results on either the materialistic or the monistic theory.

If, on the contrary, the music of consciousness is due, not merely to the physical instrument, but to a musician distinct from it, the music will not be a simple result of the arrangement and condition of the parts of the instrument itself; it will not be a passive effect of the external physical forces.

As it is the violinist, not the *violin*, which initiates and directs the musical programme, so in the realm of consciousness, we shall find the *mind* initiating bodily changes or overruling those already going on.

Which of the two, then, is the actual case? Is it not, as an indisputable matter of fact, that we *do* find the plainest evidence of this *initiative and directive power of the mind*?

So far from our mental states being invariably consequents of our physical states, we find them in no small number of cases evidently taking the precedence. It is not after the blood rushes into the face that shame fills the mind, but precisely the reverse. Our nerves are not first paralyzed, and then we fear; but it is first the fear and then the physical prostration.

This positive *incursion* of the mind into the physical realm and influence over it, is a matter of common observation. We all know how a merry thought sets the lips singing and the limbs dancing; how grief convulses the features and makes the limbs drag heavily in their daily round; how anger gathers the brow in frowns; how hope stimulates the nervous system and despair depresses it. Mental medicine is no new discovery, but one long used by wise doctors—if not openly, at least in the form of bread-pills and similar devices. A course of mental work, say the anatomists, actually deepens the furrows of the brain and hardens its texture. It is the function of consciousness and thought, as Herbert Spencer himself admits, that precedes and develops the structure of the brain; not the brain, the function. The latest and most plausible theory as to the origin of the fittest—that long-sought key to the processes of evolution—is that of Prof. E. D. Cope, and this is, that it is to be found only in the *directive power* of the mind over its organism—the capacity of conscious effort and activity to develop the fleshly structures that it needs. “All this evolution,” says Prof. Cope, “has been simply due to the *active exercise of mentality or mental qualities*.”

It is of course from the outer world that we are supplied with the data of sensation. But this medley of impressions would remain within us a similar unordered and encumbering chaos of images were there not within a directive and arranging power that spontaneously rises up to subdue and utilize the crude flood

of incoming sensations. Whenever we examine our daily mental processes, we become conscious beyond a doubt that our inward thoughts and feelings are not passively determined by powers foreign to ourselves, but that the inpouring throng of sensations is ever met at the threshold of consciousness by an inward master-power who disposes of the advancing rabble according to ways and methods of his own; sorting them according to class and species of his own mental ordering, listening to and interpreting this sensation; dismissing that as irrelevant; registering certain facts for future use, and giving to motor nerves and muscles the commands suitably responsive to certain other bits of news.

When any large or difficult subject of action or thought is before us, we all know how we turn our attention from this point to that; choose (out of the greater number of possible courses suggested by the excitations of sense) some one or more definite lines of conduct or reflection, and by efforts of concentrated will pursue these to the exclusion of whatever else might divert us from our chosen path. If conflicting motives solicit us to turn in opposite directions, then we become still more conscious that it is our mental decision which, after deliberation, directs the current of thought and conduct into whichever of the alternative channels we finally decide upon.

These are facts of consciousness familiar to all. And they emphatically contradict the physical theories of mind. For in these, thought and feeling must *always* be *passive attendants* of the physical changes. And life would go on just the same whether men walked about in their present consciousness or as unconscious automata.

But, perhaps, some one will ask, has not Prof. Huxley shown that we really *are* nothing but automata?

I have read carefully this famous argument, based upon the peculiar phenomena exhibited by decapitated frogs, and by a certain invalid French sergeant. The argument runs as follows: As the frog, though minus a brain, yet performs acts seemingly intelligent; and the sergeant, in his unconscious condition, yet did many things, such as men usually do when conscious, therefore, asks the Professor, may we not all be, even when using our

brains and perfectly conscious, nevertheless automata? As in the frog and the sergeant, consciousness was a superfluous phenomenon, why is it not to be regarded, even when present, as an inessential by-product—the mere signal of the change which takes place automatically in the organism?

This is, indeed, the logical result of the physical theory. But it is a contradiction both of the results of sound reasoning and the testimony of consciousness. The case of the decapitated frog does not prove that what seems intelligent action is purely automatic; but, on the contrary, that intelligence in the case of the frog, as in the case of other lower animals, is by no means so narrowly *localized* to the cerebrum, or conditioned upon it, as in higher animals. And as for the case of the French sergeant, to argue, as Huxley does, that because in a single case out of a hundred thousand a lack of consciousness may only *partially* interfere with intelligent conduct, therefore in *all* cases consciousness is altogether superfluous, is a complete *non sequitur*. Why, then, could he act so much more intelligently on his conscious days?

The phenomena supplied by the mutilation of animals (so often adduced by Huxley and others in favor of automatism), instead of showing consciousness to be a mere product or function of structure, prove the reverse. For it has been shown by Goltz that when the animal be kept *alive after* mutilation, he regains often the mental and volitional power, which at first were lost, having learned to use some other part of the cerebrum as a substitute instrument to do the mental work which he used to do with the lost part, just as a carpenter whose hammer has been taken away will extemporize one out of a monkey-wrench or a furnace shaker. Now, as Prof. Wm. James says ("Mind," Jan., 1879, p. 16), "a brain with part of it scooped out is virtually a new machine, and during the first few days after the operation functions in a thoroughly abnormal manner. Why, if its performance blindly result from its structure, undirected by any feeling of purpose, should it not blindly continue now to throw off inappropriate acts, just as before its mutilation it produced appropriate ones? As a matter of fact, however, its performances become from day to day more normal. If we suppose the

presence of a mind, not only taking cognizance of each functional error, but able to exert an efficient pressure to inhibit it, if it be a sin of commission, and to lend a helping hand if the nerve defect be a weakness or a sin of omission, nothing seems more natural than that the remaining part of the brain should be restored to the discharge of the duties whose usual instrument has been taken away."

But if the action of the mind be simply a *function* of the *material* structure, nothing is more *unnatural* than this spontaneous *rectification* of its action, and calling in of other portions of the brain to do the work formerly done by a lost portion.

No automatic action, however skillfully arranged, can possibly be equal to all the new, strange exigencies with which human life, even in its lowest forms, has to cope. As Geo. H. Lewes has said, "Organized experience cannot be made to enter into the mechanism of an automaton; because, however complex that mechanism may be, and however capable of variety of action, it is constructed solely for definite action on calculated lines. All its readjustments must have been foreseen. It is incapable of adjusting itself to unforeseen circumstances. Hence, every interruption in the prearranged order throws it out of gear and brings it to a standstill. An automaton that will learn by experience and adapt itself to conditions not calculated for in its constitution, has yet to be made. Till it is made, we must deny that organisms are machines" ("Physical Basis of Mind," p. 436).

In the face of such considerations as these, we are abundantly authorized to reject the automaton theory of the mind and accept the alternative theory of the *initiative* and *directive* influence of the mind over the physical organism and its changes. And this initiative and directive power points plainly to the conclusion that the subject of consciousness, in ultimate analysis, is *distinct* from that physical organism with which, while here in the body, it is yet so closely bound up.

But, it may again be asked, is not this establishing an objectionable Dualism? Does not logic demand that essences be not unnecessarily multiplied? And is it not more in accordance with the true spirit of both science and philosophy to suppose a fun-

damental unity at the bottom of all phenomena, than an antagonism of two irreducible essences?

Yes, I grant you, it is the philosophic spirit to bring together all phenomena ultimately in a single centre and relate them to one supreme Reality. But this *Unity*, in which all is centred, is not a unity that erases fundamental differences; it is not a unity of phenomena or of created existences, but a unity of source, of the Divine Creative Reality, beneath all phenomena. This is, undoubtedly, one and only one; and this single, Divine Reality undoubtedly underlies both body and mind, and sustains them.

But this is, by no means, the same as saying that the material motion in the body and the conscious thought in the mind are one and the same process. Forceful as is the mental instinct toward unity, why, nevertheless, should the human organism be thought to be more rigidly homogeneous than a piece of glass? In the glass, as we know, the scientific world hold that there is present, not merely the material atoms, but also, filling up the interstices between them—the luminiferous ether—a thing of most opposite qualities, continuous, undivided into atoms, invisible, imponderable, and frictionless. No savant has seen, or touched, or weighed this ether, or separated it from the material substances in whose interstices it lurks. Yet all the scientific world believes in it. And why? Simply because, as Tyndall says in his paper on “The Use of the Imagination in Science,” “The phenomena take place *as if* there were such a substratum.” Because, by the assumption of this *ether*, and that alone, the phenomena of optics are accounted for with clearness and fullness.

On the same principle of reasoning, are we not equally justified in assuming a *cogitiferous ether*, a thought-bearing soul-substance, as the necessary substratum of consciousness, by which alone its distinctive phenomena can be explained? Certainly, the phenomena of thought, feeling, and will occur *as if* there were such a cogitiferous ether, free from division into discrete atoms; a continuous, unitary, permanent soul-substance, correlated to and interacting with the physical organism, but distinct and superior in essence to it. The distinctive phenomena of consciousness—the unity and identity of the mind, its initiative and

directive power, its power of choice and intelligent adjustment to new circumstances—are explained by this assumption, and this alone, with any clearness or conclusiveness.

We must, therefore, recognize a difference—the greatest anywhere found in nature—between mind and matter.

I would not deny—nay, I would affirm—that the *Absolute Reality* beneath both is *one*. As Spencer says, “The life which wells up in the human consciousness is doubtless essentially one, with that force which animates and moulds, after intelligent plan, the outward universe.”

There is truth here. But the mistake of the materialist is to leap from this to the conclusion, that if all is one, that *one* is matter and its forces, rather than *mind* and its manifestations. And the mistake of the *monist* is to jump to the equally inconclusive result—that consciousness and physical forces are but one *process*, subjective and objective faces to *one another*; as if these two properties made up the whole substance of the one Reality.

The One Reality is no *sum*, made up of these two sides or factors, but a whole, immensely greater than both. Both factors have their *roots* in it, to be sure, both are products of the Divine Essence; but these two groups of phenomena do not *exhaust* it, and are not, therefore, identical. We may call matter and mind different aspects of the Divine Reality; but they are not objective and subjective aspects of *one another*.

Consciousness is not the interior action of matter, and the matter of the human body, the substance which shows itself in this mental action; but they are correlated and interact *through the greater whole*—the Divine Source from which each has proceeded, and whose force flows into and sustains each, as all the varied parts of creation. Though speculatively, then, we may derive them from a common Essence, the Absolute Reality from which all phenomenal things proceed; nevertheless, wherever and whenever they are *manifested*, we find them already distinct, differentiated into the most opposite substances, marked by contrasted and irreducible traits, and so little to be identified with one another that we cannot even find a common measure by which to measure one against the other. Whatever *guesses* we may make, we can never *know* them as one; for into that realm

of *things* in themselves, where they are united (if they are united), knowledge cannot enter. Whatever flights of fancy speculation may please itself by taking, nevertheless at the bar of *science* they must always stand as *two separate* kinds of existence. Even the monists themselves admit this, when sober second thought resumes for awhile its sway. Thus Taine, strongly as he has argued for the monistic theory, yet at the same time admits that "no motion whatsoever, rotatory, undulatory, or otherwise, bears any resemblance to the sensation of bitterness, cold, or pain. The gulf which exists between these two classes of phenomena, is always impassable to the intellect." ("On Intelligence," quoted in p. 57, "Pressense's Origins.") And Herbert Spencer, though he puts forth as a probable theory that mental and neural processes may *really* be but two faces of the same thing, yet has to admit at last that "Being is fundamentally divisible into that which is present as mind, and that which, lying outside of it, is *not* mind." "*We must rest content with that duality of our symbols* which our condition necessitates."

However much we might *like* to carry our analysis further, the reasoner, who respects the limitations of *sound thought*, will always be obliged at this point to come to a halt.

DEPRAVITY AND ITS CURE.

[A Paper read before the American Institute of Christian Philosophy, December 1st, 1887.]

By Rev. G. E. STROBRIDGE, D.D., YONKERS, N. Y.

READERS of the Scriptures are familiar with the fact that there are numerous passages which may be laid alongside of each other, in pairs, after the manner of the following familiar verses :

“What is man, that he should be clean ?” and

“Except a man be born again, he cannot see the kingdom of God.”

“The heart is deceitful above all things and desperately wicked ;” and

“A new heart also will I give you, and a new spirit will I put within you.”

“The carnal mind is enmity against God, for it is not subject to the law of God, neither indeed can be ;” and

“If any man be in Christ, he is a new creature : old things are passed away ; behold, all things are become new.”

From these parallels, it is plain that the Bible aims to teach two great truths: 1. Man is spiritually diseased ; 2. For this disease a remedy has been promised and provided.

The word depravity is used by students to set forth the natural condition of man’s heart as it is described in the Scriptures. It means a vitiated state of moral character, want of virtue, extreme wickedness, absence of religious feeling and principle.

Such a description can be applied to man, however, only in a limited degree. It must not be taught that man is naturally as bad as he can be—that he is a beast, that his moral sense is destroyed. All through the Bible men are regarded as capable of generous feelings and honorable conduct. Coleridge puts it thus: “As there is much beast and some devil in man, so there is some angel and some God in him.” The lines from Archbishop Trench set forth the proper description in a few words :

“We, who did our lineage high
Draw from beyond the starry sky,
Are yet upon the other side
To earth and to its dust allied.”

Prospero says of Caliban :

"Abhorred slave !
Which any print of goodness will not take,
Being capable of all ill."

This may do for Caliban, for he was an inhuman creature, "got of a hag." But as applied to man, it will not do, for while part of it is true, part of it is certainly false. "Which any print of goodness will not take," is not true; man may take all the prints, the marks of goodness. The other is true: "Being capable of all ill," man is unfortunately able to measure himself along unlimited lengths of wickedness; he may become utter and abandoned in his career of sin. Man, if assisted, may rise to the most sublime heights of moral excellence, purity, and power; but his natural tendency is downwards, and if he is unhelped, unchecked, there is no fathoming the depths to which he will sink. His gravitation is toward a bottomless pit.

According to the Scriptures, the origin of sin among men and the beginning of this depravity, is told in the story of the Fall. Created sinless, man abused his freedom, yielded to temptation, lost the favor of God, was expelled from Eden, became subject to death, and by the law of descent, fastened the evil taint of his nature upon all his posterity.

The race never gets out of sight of this dark and towering fact. The poison of the forbidden fruit runs like an active contagion through all the following generations. Blood stains the first family—the first son murders the first brother. Men degenerate as they multiply, until the Deluge becomes a necessity. The burial of the race takes place; Noah and his family only survive. There is now a better hope. But what are the facts? The timbers of the ark, caught on the horns of Mount Ararat, have scarcely rotted away, when the tower of Babel rears its impudent front!

To save His truth and keep alive His name among men, God selected one nation to be His representative. The history of this people is an improvement. And yet their record is marred by many blemishes, showing plainly that they had their share of this old inclination to evil. Abraham their founder, prevaricated, and so did his son; his grandson stole the blessing from his brother

and then lied about it to his blind father; the Chosen People, while yet their brows were moist with the foam from the parted waves of the Red Sea, went down in dust and nakedness before the golden calf; Miriam sinned, and the lips that had but lately sung, "The Lord hath triumphed gloriously," were covered with the ashes of leprosy; Moses, the meek man, forgot himself and provoked his God; Joshua neglected to take counsel of heaven, and was outwitted by idolaters; Jephtha defiled victory with a rash and cruel oath; David cut an ugly gash across two of the commandments; the wise Solomon stooped to the most abject sins. Under his successor the kingdom was rent in twain; both portions afterward plunged into deeper corruption, one part to sink soon into utter night, the other to linger still, a people scattered and peeled, without local habitation or national name. So dense was the darkness of the Jews, that when Christ the Messiah, the long-promised and looked-for, came, they did not recognize Him, refused to receive Him, and put Him to a painful and degrading death.

The eclipse of the Fall projects its shadow clear across the Old Testament and into the New Testament. The Old Testament covers forty centuries, the New Testament one. The forty centuries are midnight, with an occasional and lonely star. The best that can be said of the one century is that it is twilight—twilight after midnight, it is true—twilight with the morning star sparkling in it, but only twilight. Within one hundred years after Christ, the churches founded by St. Paul had sadly declined. The last pages of the Bible contain letters reproving some of these churches because "they have left their first love," "trusted their riches," "were idolaters," "sunk into the snare of Satan," "were neither hot nor cold," "had a name to live but were dead."

The fact of human depravity persists clear through the Bible. The Scripture characters were undoubtedly the best men of their times, but they all showed this tendency to go wrong, the taint of sin was in each one of them. Something is the matter with the human race. The Word of God, with an unflinching frankness, insists that man is inwardly defiled. His is a case of spiritual blood-poisoning—the whole head is sick, the whole heart is faint.

The Scriptures are not, however, so severe in this indictment as is secular history. The Bible never charged human nature with such black ingratitude as that recited by unimpassioned history in the case of Burton and Elizabeth Gaunt. Revenge never wears such horrid features as in the story of the feuds of the Scotch Highlanders. For cruelty, study not the cartoons of Hogarth, but read, if you can stand it, the narratives of the Sicilian Vespers, the Armagnac massacres, the sacking of the cities of St. Quentin, Zutphen, and the little but brave town of Naarden. Read how Louis XIV. devastated the Palatinate. What wonder that Carlyle cries out, "Cruel is the panther of the woods, the she-bear bereaved of her whelps; but there is in man a hatred crueler than that." Man's capacity for extreme badness appears in nothing, however, so much as in the effrontery and blasphemy whereby he dares to associate religion with his crimes, and presumes to catalogue butchery as a Christian act. The Spanish soldiers about to rush to the sack of Antwerp, drop on their knees and ask the blessing of God on the devil's work! On the one side of their banner there was the gentle face of the Madonna, and on the other was the dying form of Him who said, "Love your enemies!" After the slaughter of St. Bartholomew, the Pope, with his cardinals, went to St. Mark's Church, chanted the "Te Deum," and offered thanks to God.

"Then priestly hands, for Jesus' blessed sake,
Were red with blood, and charity became
In that stern war of forms, a mockery and a name."

"Strange," exclaims Prescott, "that in every country, the most fiendish passions have been those kindled in the name of religion." Not strange, after all; not at all strange, when we remember that man is depraved, that he is infected with that propensity to evil which will, if unrestrained, stop at no lengths, and will debase even his religion to the ministry of his sin. When Faust has chosen Mephistopheles to be his companion and accomplice, and he would have him come to him in some disguise, he appears to him as a man. Faust says, "Why dost thou appear to me under this mask? I asked for a devil, and not one of my own race." Mephistopheles answers, "Faust, perhaps we

are wholly devils when we resemble you ; at least, no other mask suits us better." And the dark fact of human depravity, and its darker illustrations, prove that Mephistopheles was right !

A faulty education, bad example, evil surroundings, are not enough to explain man's persistent proclivity to sin. Even where the environments may be exceptionally good, the natural development is toward the wrong. Were it true, as some insist, that all children are born into the world lambs, yet in every case the tendency is to grow not upward into sheep, but downward into goats. Before a child is old enough to be influenced by imitation, it shows evil tempers, and acts, at times, like a little savage. On this subject the mother is the best theologian. She would resent the imputation that the child in her arms is a little tiger, or demon, and yet with equal emphasis, she is ready to correct the complimentary suggestion that it is a little angel. It is more nearly half-and-half ! She will tell you that if a thing can be done in the wrong way, the child is sure to do it that way. She will tell you also that if you cross the will of a child that seems to be the most amiable, your rash act will start a small cyclone.

Escaping from infancy, long before we reach maturity, each of us is compelled to confess that we feel the stirrings of this distemper within us, and in any struggle it is the evil which carries off the usual victory. If ever the good is won, it comes only at the price of an effort, while the evil comes as easily and as naturally as the throb of the pulse. A very short education will make any of us proficient in sin, while it is the labor of a lifetime to train us in virtue. The more sincere and energetic men are in their efforts after righteousness, the more do they feel that they are naturally perverted. One who was good enough to be called a saint, said, " My own heart makes life bitter to me, and the thought of death sweet." Ralph Erskine, as he saw a robber led to execution, said, " But for restraining grace, I had been brought to this same condition." Bradford, the English martyr, when he saw a man going to Tyburn, broke out, " There, but for the grace of God, goes John Bradford." A man appeared at one time in Athens who professed to be able to read character at sight. The disciples of Socrates brought their master to him. The professor said that the man before him was one of the worst

types of humanity, he was a natural thief, a constitutional liar, and a glutton. At this point the friends of Socrates rose in indignation, and were about to deal with the supposed impostor. But Socrates restrained them, and said the man was right, that he might have charged even greater crime upon him, and greater wickedness of nature, that it had been necessary for him to master these defects of character, or else he would have been guilty of all that had been laid against him. Goethe declared once, "I never heard of any crime which I might not have committed." And we may all listen to our own Lowell:

"Looking within myself, I note how thin
A plank of station, chance or prosperous fate,
Doth fence me from the clutching waves of sin;
In my own heart, I find the worst man's mate."

For the beast to follow his instinct, is to go right; for man to follow his inclination, is to go wrong. But inclination is as natural and as strong with man as instinct is with the beast. If the beast is naturally right, then man is naturally wrong, and he is the wise man who believes this; he is the wise man who believes that his nature is evil in its tendencies; he is the wise man who does as another advises, "leaves his nature as Joseph did his coat, and escapes for his life."

It is now an open secret of modern science, that not only are physical features and mental peculiarities propagated from parent to child, but also, what is more remarkable, moral traits, and a good or bad disposition. In the kingdom of life, three principles have been settled. 1. Everything reproduces its kind and no other kind; 2. There is a physical identity between the parent and the child, and a spiritual identity back of the physical; 3. Bad and good traits go down to the third and fourth generation.

This last rule works well, of course, for those whose progenitors are of healthy brain and heart, and we are not surprised that such ancestors have, in general, worthy descendants. But on the other hand, this law works disastrously for those whose parents are vile and vicious. We may not press this too far; we must not forget that some teachers in heredity deny this as a

uniform rule; we must not fail to note the fact that has been reported concerning the children of the convicts at Botany Bay, that they are found to have as healthy a moral sentiment as other children. And yet treating the subject as conservatively as possible, we are constrained to admit that the average of facts sustains the position already announced, and now generally held. The father of Nero, when congratulated on the birth of his son, said that whatever was sprung from him and his wife, Agrippina, could only bring ruin to the State. The infamous Antonia, wife of Belisarius, was the daughter of a theatrical prostitute. Consider the tumultuous ancestry of Byron. His father was a brutal roysterer, his mother, in her moments of fury, would tear to pieces her dresses and bonnets. When her wretched husband died, she almost lost her reason, and her cries were heard in the streets. The Stuarts were the most inferior line that ever governed England. They were introduced by the beautiful but sinister Mary Queen of Scots. She carried and poured into her descendants the bad blood of her mother, who was of the family of the Duke of Guise, the worst house in France. Their characteristics were untruthfulness, sensuality, bigotry, and cruelty. And we find untruthfulness cropping out in Charles I., sensuality in Charles II., and bigotry and cruelty in James II. As in the olden time, so now there are good families and there are bad families. To marry into some families is to achieve a blessing, by wedlock to enter other families is to court a calamity.

Science has come to the defense of the Scriptures. It now teaches, as did the Bible long ago, that each parent begets a child in his own likeness and after his own image. According to this, if those back of us had been good and without taint, we would have been good and without taint. Turn this statement the other end to, and we have it thus: inasmuch as those who begot us were not good and without taint, we are not good and without taint. And this is a solemn and indisputable fact. On, on rolls the stream of human blood; from its waves there flies a spray. This spray is carried aloft and borne along by the wind of natural law until it falls upon the sensitive plants that grow on the uplands of mind and spirit, and it affects those plants; it

bedews them with a blessing or it blights them with a curse! Science reads the Bible nowadays; she has grown orthodox. Get close enough to her when she is in her best moods, and you will hear her singing, over and over again, those familiar lines from Watts:

"Lord, we are vile, conceived in sin,
And born unholy and unclean;
Sprung from the man whose guilty fall
Corrupts his race and taints us all."

And as Science thus sings, she nods her head and says, "Yes, Watts was right!" and Watts nods his head and says, "Yes, the Bible is right."

Scripture, history, experience, and science unite in the one testimony, that man is naturally wrong in his moral make-up, that by descent from parent to child, he comes into the world with a fondness for sin, a proneness to evil, and this tendency unchecked, bears him on ever to deeper and deeper ruin. If we are candid, accustomed to study facts, and weigh evidence, we must reach this conclusion, and hold it with an invincible faith.

Two cures for this evil have been proposed by man. They are reformation, which is the more popular, and culture, which is the more pretentious. Both, however, must be catalogued as failures.

Reformation will check the manifestation of sin, but it will not suppress the sin itself. Cutting off the dead branches will not take the worm out of the root of the tree. Rectifying bad manners will not heal diseased natures.

Culture, education, refinement, will do much, but they will effect practically nothing along the lines in which this cure is to be found. We can never refine the old into the new; we can never educate the leopard out of his spots; culture will never bleach the cuticle of the Ethiopian.

The claim that depravity is to be cured by culture, would leave the mass of men unhealed. The multitude have never been highly educated; they are not now, and it is doubtful if they ever will be. They have no time to pursue knowledge. They must toil, in order that the privileged few may have the oppor-

tunity to aspire to polite learning. Writers who are accredited authorities assert that the average mental ability of the Greek race was far above that of the modern English and American. They presume to say that the Greek mind was as far above ours as ours is above the African. And yet, in her palmiest days, Greece only averaged one illustrious name to every five thousand. If this is the best that culture can do for the best brain, at the time, too, when it was at its best, and if culture is the only cure for our depravity, we are surely in a bad case. To popularize goodness by the suffrages of culture, is to vote it into an extremely narrow aristocracy.

But culture has been tried and found wanting. It has been noted and put on record, that the classical age of English literature, that period in which Addison was polished, Swift witty, Goldsmith pathetic, Fox magnetic, Burke magnificent, and above all sat Samuel Johnson enthroned like a *Pontifex Maximus* in the temple of letters—this age was the time, also, in which England was corrupt in the extreme. “The clergy were branded as the most lifeless in Europe, the most remiss of their labors in private, and the least severe in their lives. In both extremes of English society there was a revolt against religion and the churches. In the higher circles, says Montesquieu, ‘every one laughs if one talks of religion.’ Drunkenness and foul language were thought no discredit to Walpole. Purity and fidelity to the marriage vow were sneered out of fashion. At the other end of the social scale, lay the masses of the poor. They were ignorant and brutal to a degree which it is hard to conceive. They were left without moral or religious training of any sort. Hannah More wrote: ‘We saw but one Bible in the whole parish of Cheddar, and that was used to prop a flower-pot.’ In the streets of London gin-shops invited every passer-by to get drunk for a penny and dead drunk for twopence.” And yet these gulfs of corruption were lying unillumined beneath a sky of culture brilliant with stars of the first magnitude.

It is a common reproach of our nature, that minds of the highest training have often been associated with evil hearts and abandoned lives. Turner, who could dream of enchanted landscapes, is described as entering into all the pleasures of a sailor

on a spree. Burns, Byron, Douglas Jerrold, Edgar Allan Poe, were mustered among the galley slaves of King Alcohol. Coleridge often sank into beastly intoxication. Steele, the author of "The Christian Hero," was, at times, a sot. He would dress himself, kiss his wife and children, tell them a lie about his pressing engagements, and hurry over to a neighboring groggery and have a revel with his bottle companions.

Put Truth into the pulpit and give her an audience, and of one thing you may be sure before she begins, and that is, she never will proclaim that culture will accomplish man's salvation. You can never persuade her to preach from the text, "By taste are ye saved."

Human nature may be likened to a block of marble; culture is the chisel which brings out the artist's fair ideal. Just as the statue is finished, however, and perfection is hovering over it, a flaw is uncovered to mar the rounded arm, or a spot floats to the surface on the polished cheek. That flaw was a vein hidden far within the depths of the block, that spot was a discoloration secret and unsuspected. The chisel may bring them out, but can never take them out. They are in the texture of the stone. To remove these blemishes the stone must be changed, could that be done, and it is certain it could not be done by the chisel. In like manner, to remove the defects in our moral nature, the nature itself must be changed, could that be done, and it is certain it could never be done by culture. He who made the marble alone can change it. This change is really a new creation, and that is something which only the Creator can produce.

The cure which alone meets the case is the one proposed in the Scriptures. It is an entire revolution of the disposition, a renewal of the spiritual nature. A man's loves and hates are changed; they are as strong or stronger than before, but they move in a direction the opposite of their former course. If we are willing to take our terms from the Bible, we will find that this change is so radical, so thorough, that it has been aptly styled a conversion, a regeneration, a new birth, and its effects in every case justify such strong descriptions. In the olden times, a persecuting Saul is changed into Paul, the laborious and self-sacrificing Apostle. In later times, John Newton, a drunken,

fighting sailor, "an infidel and libertine, a servant of slaves in Africa," as he wrote of himself in his epitaph, became the flaming preacher of the Gospel and an associate with Cowper in writing the Olney Hymns. And still in our day, like reformations and revolutions are going on all the time. The existence, persistence, and growth of Christianity are to be explained in no other way than by the fact of this new birth.

That there is mystery in this change, we do not doubt or deny. Indeed, were mystery not present, we should be compelled to suspect the absence of God's hand. Christ admitted to Nicodemus that it was mysterious. He likened it to the going and coming of the wind, whose effects we recognize, but the cause of whose secret movements is past our knowledge. So this cure is reported both to ourselves and to others by effects that we may plainly perceive, but the cause remains a mystery.

There are those, however, who object that this change is miraculous and proceeds by a method out of the usual order of things. But this statement must be criticised as incorrect. The method by which this change takes place is not outside of the usual order of things. It is the rather in line and harmony with a law everywhere recognized and everywhere at work. The plan operating in the cure of depravity is a process common in departments outside of religion, and is, in fact, the only way to secure the end sought.

It sufficiently describes this cure to say that it is the infusion of a new passion into the heart. God conquers our old and evil passions by putting over them a new and better passion. In former days physicians were accustomed to use the expression, "drive out one passion with another, or with some contrary passion." Sudden fear has been known to cure an attack of ague, the chill caused by fright driving off the chill caused by disease. Thus is it commonly understood that one feeling, whether physical or mental, may expel another and take its place. The withering passion of avarice may be cured by patriotism. The stingy man may be made to relax his hold on his wealth and pour out freely his hoarded treasures for the defense of his country when her honor is insulted or her safety is endangered. Thus the love of country expels the love of money,—the passion for native land

proves stronger than the passion for gold. S. F. B. Morse was an artist in his early manhood. He was a pupil of Benj. West, and, returning to this country, he opened a studio in this city. But when he became possessed with the thought of the telegraph, the new passion subverted, in fact, entirely substituted the old passion, and the studio was first neglected, and then abandoned for the laboratory. Now this law which operates everywhere else, we need only apply in the higher realm of man's nature in order to see the working of that change by which depravity is cured. The old passion is the love for sin, the new passion is the love for God. At conversion, the love of God, as the Bible very fitly expresses it, is shed abroad in the heart, and as it might be expected, the new passion drives out the old passion. There is no emotion so absorbing as the love of God. It dwarfs all others; the world and its frivolities become contemptible. The soul possessed of God sees all things belittled that are not god-like. In a measure, this is the case when men come near to God simply in the study of nature, and in the contemplation of the works of His hand. Newton, traveling habitually in company with suns and planets, in secret communion with the stars, had no taste for lesser things; for instance, he had no sympathy with the Earl of Pembroke's fondness for statuary, and wondered what he could see to admire in those "stone dolls." After the same order, only in a higher degree, the truly converted soul is entirely content with the happiness which attends his love for God.

The practical results of this change do not end in enjoyment alone, but they lead to a correct life. The man is filled and fired with a passion of obedience. During those bursts of frenzy, which so often swept over the city of Paris in the early period of the Revolution, all the citizens went forth one day to put in order the Champ-de-Mars for the Feast of Pikes. Among those who offered themselves for work, was one belonging apparently to the upper classes. He pulled off his coat and then his vest, in the pockets of which were two watches, and, throwing the garments on the ground, was stepping forward to take his place with the workmen, when several cried out, "Your watches! will they not be stolen?" His only reply was, "Am I afraid to trust

my brothers?" And he left them lying there. Sure enough, they were not stolen. In this case, all the people were carried along with an exalted enthusiasm. Equality and fraternity burned in their hearts, and so long as this flame lasted, they could do nothing contrary to these feelings. They were filled with the passion of brotherhood; it drove out all other passions, and for the time being, they were incapable of doing an unbrotherly act. Now, the enthusiasm which comes to a converted soul, operates in the same way to prevent sin, only it is an enthusiasm which lasts not for a short time only, it abides and works as a permanent check upon wrong-doing. Such an one will not commit sin, because, as John states it, he is born of God, and he cannot sin because his seed remaineth in him. God now is working in him both to will and to do of His good pleasure. There is an inward operation constantly going on by which the disposition to do evil is subdued, and the desire to do right is supplied in its place. Antigonus, the founder of the city of Antwerp, was accustomed to cut off the right hand of those merchants who were caught smuggling. But Christianity, the new birth, the cure for depravity, strikes at sin yet more effectually than this. It implants a principle, a burning enthusiasm, a passion for righteousness, which causes the right hand of the forbidden act to fall off of itself, and in its stead supplies the right hand of active obedience, which causes even the right eye of forbidden desire to drop out of itself, and substitutes the single eye which fills the whole body with light.

Such is the Scripture cure for depravity. It is the driving out of the old love by the coming in of the new love. It is the driving out of the ardor for Vashti by a stronger ardor for Esther. A picture that was commonly seen in ancient times, represented one Cupid contending with another and taking the garland from him. This was to show that one love may drive out another. Depravity, our love for sin, is a deformed Cupid. Love for God is a fair Cupid. In the cure of depravity the fair Cupid contends with the deformed Cupid, and takes the garland from him!

By this salvation have countless thousands been delivered from their depraved natures. There is no need that any man

remain a sinner, the victim of temptation, the slave of his passions. There is no need that any heart continue diseased. This is the good news, this is Christianity, and this is the only hope of the world. It is folly to expect any improvements on it, or any substitute for it. None are needed, *it does the work!* So long as human nature is what it is, and so long as the Gospel is what it is, the latter is the only cure for the former. We standing here with the chariots of nineteen centuries rolling past us, may cry out as did Paul in the first century, "I am not ashamed of the Gospel of our Lord Jesus Christ, for it is the power of God unto salvation."

"Whatsoever is first of all things, must necessarily contain in it, and actually have, at least all the perfections that can ever after exist; nor can it ever give to another any perfection that it hath not actually in itself, or at least in a higher degree; it necessarily follows that the first eternal Being cannot be matter."—*Dr. George C. Lorimer, in "Isms."*

MONISM.

[A paper read before the American Institute of Christian Philosophy, Nov. 3, 1887].

BY ROBERT L. DABNEY, D.D., LL.D.,

Professor in the University of Texas.

MONISTS postulate the doctrine, that the result of a true philosophy ought to be to unify the whole system of human thought, by ultimately resolving all the multiplicity and diversity of beings into one single substance, and all effects into the power of its single energy. They think this true, real being a *Mονος*, and the whole universe of spirit and matter, in its reality, an absolute Monad: Duality even, of real Being, they cannot be reconciled to: plurality of distinct powers they think unphilosophical. Hence, it must be true, somehow, that either the multiplicity and diversity must be only apparent; or these beings must be only apparent, or else modal and temporary manifestations of the one absolute Being. The highest problem of all monistic systems is to make this resolution of the many into the One by some speculation. On this we remark:

1. The monistic tendency has been, in fact, widely influential in philosophy, for two thousand four hundred years. It was the animating principle of the Eleatic school, 500 years before Christ. Zenophanes, announcing the unity of deity, also denied that real being could either begin to be or cease to be. This central doctrine obviously imposed on his school the task of either accounting for temporal and changing beings, as modal manifestations of the one, eternal substance; or, with his successor Zeno, denying flatly that temporal and differing things had any true being, or were anything more than delusions; or, with Heraclitus, of resolving all, both the Absolute One, and the temporal many, into one stream of endless becomings and endings.

Plato's later metaphysics, after he had refined away from the sober, Socratic influence, unfolded strong monistic tendencies. He went ever nearer to the ideal scheme of resolving the being of God, the eternal *To 'όν*, into idea; and matter, as well as finite mind, into the emanations of the eternal ideas. When we pass

to modern philosophy, the pantheistic scheme of Spinoza reappears as rigid and complete Monism. Its main postulates are, that only eternal and necessary Being can be real: that its actual beginning in time, *ex nihilo*, is impossible; that absolute and necessary being can be but One; that hence, all seeming individual temporal and differing beings must be but modal manifestations of the eternal One. And that we must accept this explanation even as to phenomenal entities so opposite as mind and matter, good and evil, virtue and vice.

German idealism, in all its phases, from Fichté, through Schelling, Hegel, Schleiermacher, Schopenhauer, to Hartmann, glories in being monist, and despairs all systems which do not tend to this result. Its whole effort is, under one scheme or another, to identify the world of thought known in subjective consciousness, the world known as objective, and the eternal mind, as one. To this day, after all the hopeless self-contradictions and mutually destructive refutations of these schools, publishing their own futility, we see the monistic tendency captivating the larger part of German philosophy, and disposing its authors to deny the name of true philosophers to all who refuse to speculate for the monist result, even when the names are as illustrious as those of Reid, Jouffroy, Hamilton, Cousin, and McCosh.

Perhaps the most surprising evidence of the pertinacity of the tendency is that seen in the materialistic philosophy—so called—of our own age, from Hartley and Priestley to H. Spencer. Auguste Comte's positive philosophy is a stark attempt to establish Monism, by reducing all science and philosophy and theology at once, to the science of sensible phenomena and their physical laws. Instead of seeking, with the Idealists, to merge the objective world into subjective thought, he attempts the opposite: to reduce all thought to physical energy. Herbert Spencer, discarding both spirit and God, attempts to construct his whole universe of mind and nature out of matter eternally existent, and material force eternally persistent. He asserts the very essence of Monism with the sharpest dogmatism, declaring that our system of thought cannot have any pretension to be a philosophy, until it has explained every being and every effect in the universe as the outcome of one substance and one force.

2. We will now place ourselves in the Monist's point of view, and endeavor to represent fairly whatever seems to him specious or plausible in favor of his conclusion. He urges that the function of philosophy is to unify thought. The rudiments of cognitions are given to the unscientific mind in the form of individual, successive, diverse, or even discordant percepts. The business of the science of mind is to explain and so to unify these into system; to show how they compose one whole of thought. Thus: the forming of a simple judgment in the understanding is a unifying act of thought; it places one subject and one predicate in the unity of a single affirmation in thought. Again, what is the mind's act in forming a concept, or general idea of a class? By comparing acts it collects individual objects made known to it in perception, which have agreeing marks or attributes, into a single cognition, which represents the common marks of all. The concept is thus a unification of many into a more complete one. So, the logical process of proof (by syllogism) also pursues this unification in thought, continually bringing the lower and more diverse and numerous propositions in the conclusions under the logical control of the fewer and higher premises, until all are unified under the primitive judgments of the reason. The old Realist theory of general ideas, again, reigned nearly unquestioned from Plato to Roscelin, that in every concept there must be, besides the individuals denoted by the class-name, an *ens reale*, either *ante res individuas*, or *in rebus* connoted by that term. Now add the undisputed rule of the logicians: that intension of concepts varies inversely with their extension; that as the larger *genus* includes more individuals than any one of its species, it expresses fewer of those attributes which differentiate species and genera from one another. Hence, at the top of the generalizing process there must be a *summum genus*, including in its concept all individual beings of all *genera* and *species*, but connoting only the one attribute of existence. Then ought there not to be, answering to this *summum genus*, an *Ens Realissimum, in rebus*, and also, in this case, *ante res*? Is not this Monism? Does not this show us the whole peripatetic scheme tending to that culmination?

Once more, it was the glory of the metaphysical thought of

Greece, that in spite of the prevalent polytheism of the myths and poets, their philosophy led them up to monotheism. Zeno, Phanes, Plato, Socrates, Aristotle, Plotinus were monotheists; they correctly unified their thought by tracing the whole *cosmos* of effects to a single Divine, Absolute Cause, as to their efficient source. Should they not have completed the process of unification by tracing all phenomenal being up to the one Absolute Substance? This is what Monism is attempting to complete. When all the better part of Greek philosophy became Christian, the attempt of all the better Divines, to combine the doctrine of the Trinity with monotheism, resulted in "Monarchianism." The personality of the Word and Spirit was acknowledged; but the person of the Father was held forth as *Μονη Αρχη*, the substantive source of the other two persons, whom He perpetually and eternally emits from Himself by a process of self-differentiation. Why should we not extend this genesis to all other individual beings?

Finally, consistent unity throughout must be the characteristic of any system of truths. Hence, since philosophy should aim to systematize all the spheres of truth, it should seek their unity in an absolute Monism. Such is the plea: let us now examine its validity. Our position is, that these affirmative arguments are only specious; and that the theory is as erroneous as it is hurtful to sound thought and philosophy.

3. Monism is to be rejected, because,

(a.) Its inevitable corollary must be either *Atheism*, or *Pantheism*. If there is no being that is real in the universe, except the One, the Absolute Being: if all phenomenal beings are but *modi subsistendi* of this One, then it must include God, along with all creatures (so called) in substantive oneness. Only by saying there is no God, can this rigid conclusion be avoided. It is not said that every Monist has avowed either; or that all of them have seen clearly whither their speculation will lead them. It is not forgotten that even a Hegel deemed he could honestly conform to the Lutheran Church. But none the less is the corollary as unavoidable as it is simple. The power of the practical tendency is seen in such facts as these: That most Monists, Greek and modern, have been pantheists; that Spinoza's, the most

perspicuous and exact of all systems of Monism, was as rigidly pantheistic; that when the amiable Schleiermacher had once been imbued with Hegel's Monism, his plan of Christianity at once sunk to a pan-Christism, or baptized pantheism.

Now, therefore, every argument against Atheism or Pantheism is an argument against Monism. Against either scheme, the objections are numerous and momentous. Pantheism is practical Atheism.

(b.) Monistic speculations are obviously the results of an over-eager craving for simplification. But this tendency has ever been the snare and plague of science, the mother of loose hypotheses, the unwholesome excitant of the scientific imagination, the tempter to false analyses and hasty inductions. In this case, it has prompted the Monist to assume far more than his premises authorize. It is perfectly true, for instance, that all truths should be inter-consistent; and that so far as the human mind has grasp to see their relations, a correct system of truths will make them appear so. But it has never been proved that they must all express attributes of one single substance, or laws of one single force, in order to be inter-consistent. The laws of two distinct spheres of being cannot lack harmony with each other merely because distinct: all that is requisite here is that they do not positively clash. But especially is this to be pondered: That the providential control of the One Almighty over both the departments of being, material and spiritual, is all that is needed to unify their laws, and insure harmony to their interactions. Hence, it is proven, there is no need to predicate anything more than this supreme providence, to insure full harmony of truth in the philosophy which attempts to explain the universe. The all-controlling will of the One God gives all the Monism true thought requires.

(c.) The place, time, and manner in which Monists set up their darling principle stamp their proceeding as more fatally unscientific. From the Eleatics to the modern Idealists, they take up the monistic hypothesis as a first postulate at the beginning, instead of a final induction or conclusion at the end. Thus, the former begin their very first construction by postulating that real existence cannot be beginning existence, or ending exist-

ence. Spinoza places as his first proposition, the assertion that true substance must inevitably be absolute and unbeginning. Later and more idealistic pantheists all virtually set out with the postulate that the objective must be reduced to the subjective whether facts permit it or not: as the recent Materialists all begin, with equal imperiousness, by resolving that the subjective shall be merged in the objective.

But surely it is time philosophy had learned the lesson of true induction that science should obey its facts, instead of dictating them! Mental science is just as much a science of observation as physical: only its facts are to be observed in the field of consciousness, instead of the outer material world. These facts of consciousness are to be carefully, impartially watched, compared, noted in many agreeing instances, verified, until we are certain we have the generic facts of man's mental nature, and not some irregular exceptions; just as the astronomer, the chemist, the botanist establishes his facts of the stars, the molecules, and the flowers. Then has philosophy *data*, and then only; *data* from which she can proceed to construct mental science. It is very true that these *data* of mental facts will include more than the mere Sensationalist allows, sense-perceptions and their colligations: they will include primitive judgments of universal, necessary truth. But the claim of every proposition to be ranked among these must be tested by the infallible *criteria* of primarity, universality, and necessity. Only then can they take their places as unquestioned truths. The license of the Monists may be best seen by supposing that some other science had presumed to proceed in this way. Let us suppose, for example, that Chemistry had resolved to be monistic, in spite of nature's facts; that, fascinated by love of hypothesis and the seductions of a false simplification, she had begun thus: Since God is one, I will suppose, as of course, that matter, which is the creative effluence of His eternal unit-thought and power, must be one also; that so perfect a cause could not have been so inconsistent as to create any matter inferior in its essence to the most perfect; that science must unify itself; and chemistry is not truly unified until she holds all apparently different masses of matter to be only modifications of one original simple substance; and all its molec-

ular changes mere variations of one and the same force. So, this chemist proceeds to say: lead is gold; and sulphur is a modification of gold; and iron is also a phase of gold; for my science shall have but one simple substance at its source. It will not matter to him, that no mortal has ever seen sulphur or iron transmuted out of gold or into gold. It will give him no pause, that after the final analyses of the crucible, the menstruum, and the galvanic current, after the most refined and almost spiritual tests of the spectroscope, the iron and sulphur appear as obstinately ultimate and simple and separate substances as the gold itself. It does not matter to him: he will hold his monistic fancy, in spite of facts or the total absence of facts. There shall be but one ultimate substance of matter: so he postulates. What would have been the scientific worth of such a chemistry? History answers: It could give us the silly dreams of alchemy. It could befool generations of patient students into the worthless search for the "powder of projection" which should transmute lead into gold. But the modern chemistry which has endowed civilized man with his amazing power over nature, has proceeded in exactly the opposite way; by humility, not by dogmatism, by asking Nature for her facts, and listening meekly for her answers, instead of dictating what they shall be in order that they may gratify a love of imaginary symmetry. Thus our true science, instead of a material Monism, has given us sixty-four simple substances, each irreducible into the other. Why did One First Cause make so many? True science answers that she does not know. Her modest but beneficent province is not to solve captious questions of this kind.

So, a true philosophy must accept the facts given by Nature, in the sphere of consciousness and observation, and must follow those facts whithersoever they logically lead, if this be to a dualism of matter and spirit; instead of trying to distort the facts to suit a preconceived postulate. Philosophy must not stumble at mysteries, but only at contradictions; for every one of her lines of light lead out to some point in the dark circumference of mystery.

(d.) Here, it is claimed, is the fatal defect of all monistic schemes: they disclose hopeless contradictions of our necessary

laws of thought and truths of experience, as their inevitable corollaries. Thus, Spinoza, having assumed that all real existence must be Absolute Existence, and therefore One, is obliged to teach that modes of extension and modes of thought can both qualify, and, at the same time, be the *Παν*; and thus, that phenomenal beings, as real and true to our experience as any *à priori* cognition, or as this very *Παν* itself, are both modes of the One; although a part of them are qualified by size, figure, ponderosity, impenetrability, color; and the other part universally and utterly lack every one of these qualities, and are qualified by thought, sensibility, desire, spontaneity, and self-action. But this is not a mystery; it is a self-contradiction. The qualities of matter and extension cannot be relevant to spirit; nor those of thought, feeling, and volition to matter. They utterly exclude each other. Descartes was right: the common sense of mankind is right in thus judging. The proof is, that just so soon as we attempt to ascribe intelligence and will to matter, or qualities of extension to spirit, utterly absurd and impossible fancies are asserted.

Spinoza teaches us that the Absolute Being must inevitably have an immutable sameness and necessity of being, so strict as to necessitate its absolute unity. Yet he has to teach, in order to carry out this Monism, that this Monad exists, at the same instant of time, not only in numberless diversities of mode, but in utterly opposite modes; as, for instance, as solid, liquid, and gaseous *at the same instant*. (All that science teaches us is, that modes may succeed each other in the same matter; as when a given mass of H_2O exists, first as ice, afterwards as water, and after that as vapor or steam.) Or, worse yet, that this One, so necessary, eternal and absolute in its unity, may, at the same moment of time, hate a Frenchman and love a Frenchman in the two modal manifestations of German and Gaul, and may hate sin and love the same sin in the two manifestations, at the same moment, of good souls and bad souls! Yet this same Spinoza could not admit that Infinite, Eternal Power and Wisdom can make a beginning of real being objective to itself. Truly, this is "straining out the gnat, and swallowing the camel."

Or, if we pass to the more recent forms of Monism, we find them all, from Fichté to Hartmann, recognizing the necessity for

their theory of reducing all our objective modifications of soul to the subjective, by some shadowy process of "return upon itself," or "self-limitation." The two parts of consciousness are irreducible. No better practical proof of this need be asked, than that each successive attempt has been a hopeless failure. Who —what Monist even—is now satisfied with Fichté's plan for such reduction? Or with Schelling's? Or with Hegel's? Or with Schopenhauer's? Or with Schleiermacher's? (The writer was personally assured by Hermann Lotze, before his death, that Schleiermacherism was vanishing out of German philosophy, and "would leave no results whatever.") Or with Hartmann's? Indeed, the scheme of the latter, viewed aright, is a confession that to reduce all objective mental modifications to the subjective *ought to be* for philosophy an impossible task. For, in order to attempt the task after the failures of his predecessors, he is fain to make this process a function of unconsciousness! It is effected before the Absolute comes to consciousness, and in order that it may come to consciousness. But philosophy should be the science of consciousness. We are required to believe that the phenomenal universe, everywhere teeming with thought, knowledge, conscious intelligent will, is the result of processes in a *Thing*, which knew nothing, yet filled a universe with knowledge. But this desperate final resort of Hartmann suggests the simple proof that the reduction attempted is impossible. Thus, the most palpable and impressive conviction human minds have of the reality of objective things, is that gained when we know them as limiting our own volitions, or as affecting us with conscious impressions when we know we did not produce these by our volition. A scribe moves his hand briskly: it is stopped by the edge of his desk, and that sharply enough to produce some pain. Now, he is conscious that he did produce that motion of his hand by his own subjective volition. He is equally conscious that he did not produce the solid obstruction and the pain by his own subjective volition. If he does not certainly know these two facts, he knows no content of consciousness whatever. Even Hegel's starting-point for a philosophy is gone.

Again, men must think their own volitions the most clear and definite function of their self-hood, the most certainly subjective

of all their subjectivities. When they are distinctly conscious of modifications of mind *not self-produced*, they consequently have here the most positive evidence of the not-self. It is easy to see how the ideal Monist will be inclined to answer when we press him with the question: How is it that we are unconscious of this process of reduction by which the not-me identifies itself with the Me, if it really takes place in thought? His escape must be to remind us of that doctrine of Leibnitz (endorsed by Sir Wm. Hamilton), that there may be some modifications of thought out of consciousness, or back of it. But, first: the only instances of such unconscious processes ever verified by psychology are merely of those inchoate risings of relations between cognitions, which are in order to definite cognitions—as, for instance, the unthought ties of suggestion which influence the rise of associated ideas into conscious thought—which themselves never become explicit judgments; and second, that it is the very nature of rational volition that it must be conscious: if not conscious, it is nothing. But it has been shown how it is chiefly the presence and absence of conscious volitions which demonstrate to us the reality of the Not-me and its distinctness from the Me.

(e.) But there is one intuitive judgment so uniformly disregarded by all Monists, that it deserves to be signalized apart. This is the necessary judgment that action must imply an agent, as qualities imply an underlying substance. And hence, common sense declares that a series of actions or functions of a substance cannot constitute the being of that substance. It must exist as substance, in order to act, or have processes take place. To this rule the intuitive common sense of all the world bears witness. When they see an action, they know there must be an agent, and that the agent is something substantive, not identical with its acts, but the source of them. The whole scientific mind of the world proceeds on the same intuitive belief. Physical action must imply physical agents. The series of actions science always regards as, not identical with the agents, but as proceeding from them. When the theory was surrendered, for instance, that electricity is a fluid sliding over the surface of electrical bodies, it followed that the whole scientific mind of the world demanded the conclusion that it is a molecular

energy of some substance—possibly an unknown one. When the undulatory theory of light was adopted, the scientific mind of the world at once adopted, as the necessary consequence, the existence of another, filling all the inter-stellar spaces, and even transparent fluids and solids. For why? Has the other ever been touched, seen, weighed, smelt? No. But the necessary law of the reason compels men to believe that if there are undulations, there must be *Something* to undulate; and that the mere action cannot actually constitute the being of this *Thing*.

But this simple *dictum* of necessary truth Monists constantly discard. It seems to cost them no effort to go in express opposition to this inevitable judgment. For instance, Heraclitus thinks that the mere act of becoming may constitute the being of the most permanent and substantive things in the universe; rocks, planets, individual souls, God Himself. Plato, when leaning to idealism, thinks that somehow, *ιλη* itself, deemed by all other Greek schools an eternal, self-existent substance, may be only an eternal emanation of the One: being constituted, namely, of his archetypal Thought. That is, a mere function of a spiritual substance may actually be a material substance. Platonic Realists find the generic *Res* only in the general concepts which God thinks; and yet believe one of these “Generals,” while a true Thing, truer indeed than any individual of the *genus*, exists *ante res individuas*. This delusion could only be made possible by the absurdity we combat. When we come to modern Monists, we find Spinoza attempting to account for all finite substantive things as mere modes of development—functional acts, of the absolute Thing *To Παν*. So German idealists propose, one way or another, to construct all substantive spirits, including God, out of a series of acts of consciousness. They would fain have us believe that the solid rock, deep down in the mountain, has its being actually constituted of the self-limitation of some consciousness, somewhere.

The theory only makes its first pretended movement by defying the common sense of mankind. Possibly a poor excuse might be found for this utter blunder, in the case of the Greeks, in the fact that their nomenclature was vague. It made *Οὐσία* stand for Being or entity, Nature, and Substance. But men had

no excuse after the Latin had so exactly defined the difference between mere *Esse*, *Essentia*, and *Substantia*. An *act* has *esse*, or entity, while going on. But it is an opposite kind of entity from Substance.

In favor of Monism there is left, then, only the craving for excessive simplification, and the repugnance to the mystery of the origin of contingent beings. Against it stand the fatal contradictions to necessary intuitions and real facts of experience Monism asks: *How* does even an infinite Agent produce an actual beginning of real beings *ex nihilo*? Sound philosophy must answer: It does not know; it cannot explain that action to human comprehension. But sound philosophy can show that this is no objection; because it can be proved that such explanation lies beyond the conditions of human knowledge. Those conditions understood, we see that we had no right to expect to be able to comprehend the beginning *ex nihilo* of contingent being, nor to stumble at the fact. The human mind is equally incompetent to see how the wonder was wrought by Omnipotence, and to say He could not work it. If the fact that He did work it is proved *à posteriori*, or testified by His own word, sound reason acquiesces in the fact unexplained.

For, what are the limits and conditions of human knowledge? We will not say, with the Sensationalists, that they are simply the limits of sense-perceptions and their combinations in memory and association. We hold as firmly as any transcendentalist, that there are also certain primitive judgments and intuitive abstract notions in the reason, not collected from sense-perceptions and experience by any mere process of generalization, or by any deduction; but rather, the conditions *à priori* for formulating all valid perceptions and deductions. But while these rational first cognitions are not causally derived from sense-perceptions, *they can find their occasions nowhere, save in sense-perceptions*. This is the vital truth established by Locke amidst so many half-truths and errors. For instance: The mind can never have derived its abstract notion of power in cause and its intuitive belief that every beginning phenomenon must have its own efficient cause, from watching a phenomenon follow its antecedent. But none the less, the mind would never have enounced this judgment and

notion to itself, had it not seen instances of effects either by the consciousness or the bodily senses. Thus, even these highest and regulative truths, while not experiential in their evidence, are conditioned on experience for their occasions.

Is not this a fair inference, that our competency to judge the metes and bounds of a Causal Power must be limited to cases within man's experience? But of actual beginnings of contingent existence, either material or spiritual, man has no experience, and no observation; and he can have none. Not of any material beginning, since Physics teach us that every atom of matter was already existing before man appeared in the universe; and all seeming beginnings of masses or bodies have been merely the collecting and joining or organizing of atoms already existing. Not of any spiritual contingent Being, since sense-perception teaches us nothing direct concerning spirits that are immaterial, but they are directly known only in consciousness. But consciousness is the subjective faculty. Now, no soul can ever know or realize, by consciousness, its own beginning, because it must have already begun to be in order to have consciousness; nor its own ending, because in the ending of its being would be the extinction of consciousness. It is only the Mind which never began and can never end, the Eternal, Self-existent One, which can, by any possibility, construe to itself finite beginnings and endings.

We say to the Monist, then: Pause; both you and we are out of our depth; we are in a region of ontology where we can safely neither affirm, nor deny, nor comprehend, nor explain. Let us lay our hands upon our mouths. The conclusion of the matter is, to confess, with the Apostle, Heb. 11:3, that the doctrine of the beginning of contingent being is one of faith, not of philosophy:

Πίστει νοοῦμεν κατηρτίσθαι τους αἰῶνας ρήματι Θεῶν, εἰς τὸ μὴ ἐκ φαντομένων τά βλεπόμενα γεγονέναι.

And here is strong evidence of his acquaintance with the whole range of speculative human thought. He says at once to the Pythagorean, the Eleatic, the Atomist, the Platonist, the Stagyrite: Vain men; you are out of your depth. The same inspired caution is as good for Spinoza and the most modern Idealist or Monist.

BIBLE ACCOUNT OF THE CREATION IN THE LIGHT OF MODERN SCIENCE.

[A Paper read before the American Institute of Christian
Philosophy, January 5, 1888.]

By E. A. DAVIES, F.R.G.S.,

Manchester, England.

THREE is a feeling, more widely felt than expressed, perhaps, that in some way or other there is a discordance, if not a direct opposition, between the narrative of the creation recorded in the Book of Genesis and that deduced by scientific men from the study of the rocks of the earth's crust with their entombed remains of former life. Possibly, also, the feeling is encouraged somewhat by the extreme infrequency with which Christian teachers refer to this portion of Holy Scriptures in their pulpit ministrations.

Let us turn for a while to the sacred record and inquire whether such supposed discordance between it and the inferences of modern science has any foundation in fact. It is assumed by us, that Moses was the author of the Book of Genesis, together with the other books that bear his name. This belief, however, does not preclude the idea that, in the compilation of these early records, Moses made use of the written and spoken accounts which had been handed down from father to son, through many generations.

A period, ranging from 2,500 to 3,500 years, according to the interpretation of Scripture chronology which we adopt, intervened between the advent of man and the close of the life of Moses, a period equal to that which stretches between our own time and the days of the prophet Samuel, and it is but reasonable to suppose that during this long period there would be an accumulation of some amount of knowledge on a subject so full of interest to thoughtful minds.

The Book of Job, which is now generally assigned to an earlier date than the time of Moses, shows us that such really was the case.

Humanly speaking, that book embodies the collective wisdom of the age in which it was written, and it contains, as we know, numerous very striking references to the origin and order of created things, which often seem to be marvelous anticipations of the discoveries of these later days.

Nor are we to suppose that such men as Enoch, Noah, Abraham, and Isaac died, and left no sign. They were given to meditation, and they held close converse with God. We do not therefore detract from the sanctity or integrity of these earlier narratives, if we hold that in their compilation and arrangement, Moses was led by the Spirit of God to make use of the revelations which had been made to men of God who had lived long before him. In the two first chapters of the Book of Genesis we seem to have the spirit of three of such earlier narratives. In the first two verses of the first chapter we have the general record of Creation. From this point to the close of the third verse of the second chapter, we have a detailed, though very brief, account of the work of the six days, and this is followed by a more detailed narrative, of the creation of man, in which the reader will see that the name given to the Creator is different from that used before. It is important to our purpose that we should determine at the outset in what light we should regard the two first of these narratives of creation and in what spirit we should interpret their language: whether we should take the language as literal and exact (just as we take the words of a scientific manual), or whether we should not rather interpret it broadly and generally, and use the same freedom with it that we do with the language of the Psalms, or Prophets, or of the Book of Revelation. Do we not mistake the design of God in revelation when we expect from Him a scientific handbook or a special revelation concerning matters we are or may be able to discover by our own observation? I think that we do, and that we have too often interpreted the language of the narrative with a literalness and rigidity that are in strange contrast to the spirit in which subsequent inspired writers in Psalms, and Prophecy, and Proverbs, refer to the events here described.

Good old Thomas Scott says very pertinently on this point: "The penmen of the Scriptures were not inspired to speak of

natural things with philosophical exactness, but were left to use popular language, and to discourse of such matters according to their appearances."

Still taking the language as popular, as poetical, and hence to some extent metaphorical, as the language of a seer to whom in rapt vision it was given to look backward along the vista of the ages upon the creative work of God, which in some measure he was to comprehend and record, we should feel that if his mind were in contact with the Divine mind, there would be a general accordance between what he saw and was prompted to describe, and the order with which the creative acts are impressed upon the face of Nature. I say at once, boldly, that I think there is such an accordance, and further, that written as the account was in such an early age, and before the modern discoveries of science were made, so great is that accord, so simply grand is the narrative, and so far ahead of all merely human cosmogonies is it, that he who wrote it must have had his mind influenced by the Divine mind, or, in other words, he wrote as he was moved by the Holy Ghost.

We may now proceed to inquire whether we should regard the word "day" as used throughout the narrative in the restricted sense in which it is used by us to denote the portion of time contained in twenty-four hours, or in that wider meaning oftentimes attached to it in the Scriptures, when it is used to describe a period of indefinite length. Thus the Saviour speaks of Abraham as rejoicing to see His day,—or as we read "so shall the Son of Man be, in His day,"—or again, in the sublime words used by St. Peter, concerning God the Father: "One day is with the Lord as a thousand years, and a thousand years as one day." This latter application of the word *day* must, I think, be taken as the more correct one, as more in accord with the general phraseology of Scripture, as well as demanded by the requirements of the case. It is not a new interpretation. It is as old as Josephus; and St. Augustine writes: "It is difficult if not impossible for us to conceive what sort of days these were." It is not necessary, I think, that we should attempt, as it often has been attempted, to correlate each of the six days or periods with a corresponding period of geological time, or with a group of

strata. It will be sufficient to show that the general order of the successive acts in the great drama of Creation, as these were presented to the mind of the prophet, corresponds with that indicated by the natural records. The word *beginning*, too, as used in the first verse, does not seem to point to a particular moment of time in which God did the work here assigned to Him, but rather a period also of indefinite length that lay at the furthermost boundary of time as conceived by man. Thus, St. John uses the word "in the beginning was the Word." So in Proverbs, "the Lord possessed me in the beginning of His ways before His works of old." The writer of the Epistle to the Hebrews, also, in quoting a passage from the Psalms, says: "Thou Lord in the beginning hast laid the foundations of the Earth, and the Heavens are the works of Thy hands." With a very general consent, commentators have adopted this application of the word, so that the events described in the two first verses of the narrative may be and undoubtedly were spread over an immense period of time.

Let us now notice how the Bible account starts with and is based upon the idea of a personal God. It was God who in the beginning created both the heavens and the earth. This idea includes within itself two other ideas of (as I think) the greatest importance: first, the priority of mind to matter—and secondly, the supremacy of mind over matter. Let us glance at each of these, and then try to grasp that grand idea of a personal God, out of which they spring, and toward which they tend. First, there was a time when matter began to be. There was a subsequent time when, according to Scripture and science, it existed in a gaseous, liquid, and nebulous state—when its constituent parts lay mixed in confusion—when the matter of this earth had not been rounded and finished into shape—and when it had not been started on his journey through space with its course prescribed, and its rate calculated to a second. But before the remotest of these periods, according to our narrative, God was. Matter was handled intelligently, fashioned into shape, and made obedient unto certain laws which it cannot alter. Now the question that presses itself upon many thoughtful minds, and one that meets the student of Nature at almost every step in his inquiries, is this—

Is mind a product of matter? Did matter slowly through long processes evolve mind? or is matter in its ponderous and perceptible forms the offspring of that subtle force we call mind? Just as we infer, that all known substances are derived from the liquid mass in which, as geologists tell us, this earth was first sent rolling through space, and which liquid mass was itself derived from more rarefied forms of matter. This question carries us at once to the confines of human knowledge, into that region of thought which surrounds our fixed and orderly systems of philosophy. Still, let us try and solve the question. That matter does precede mind in the history of each human life, and that there is a point at which in germ the intelligent soul comes in, we know—but that mind-force comes in after the pattern of a pre-existent type; the perfect original of that type, the Bible tells, was God. That is not to say that mind is the orderly and necessary product of matter; to endow matter itself with all the attributes of mind; to give forethought, choice, reflection, design; in a word, to clothe it with all the qualities of an infinite wisdom, power, love, and with all that goes to make up our idea of a personal God. But to say, that all we see and know of mind is the chance result of immeasurable chance and haphazard combinations of matter through long ages, is to make a demand upon the credence or credulity of men which, with few exceptions indeed, they are unwilling to concede. So foreign is the idea to all their experience and so opposed to their sober reflection. For example, to use for a moment the well-known illustration of Paley: "If we picked up a watch upon a moor, would the idea ever occur to us that the gold, silver, steel, brass, glass, and enamel had unintelligently come together, had shaped themselves into fingers, case, spring, pinions, wheels, and face, all so nicely adjusted as to give an accurate measurement of time; or should we not rather and more reasonably conclude that an intelligence, which had a conception of time and knowledge of its rate of progress, had so arranged the material and the works that they should beat in unison with it?"

The teaching of the Book of Genesis is in accordance with this more rational conclusion that has commended itself to the great bulk of natural philosophers. The idea with which the account starts is that matter in its organization and movements is **the**

production of mind, and that in its progress from its lower forms to its higher manifestations it is ever tending upwards towards its Divine Original. Dovetailing into this idea, is the second one I have mentioned, the supremacy of mind over matter. Here matter is pliable and obedient in the hands of its Maker as clay in the hands of the potter. Still mind controls matter. It is the only force known to us by which matter and the laws by which it is governed, are controlled. We talk of the fixedness and unalterableness of natural laws, but there is one force by which, as far as they come within the scope of its action, they may be and are daily controlled and modified. That force is mind. The boy playing at ball arrests the laws of gravitation. Man generating steam overcomes the inertness of matter and the force of atmospheric pressure.

The electrician turns the swift current of the mysterious force we call electricity, and in a thousand ways our daily lives consist of that subjugation of nature and nature's laws to our own use, the prerogative for which we are told in our narrative was given to man made in the image of God. These two ideas are comprised within that grander idea of the existence of a personal God with which the account starts and which underlies the whole teaching of Scripture. God is here not only a force within nature, but also above it. He not only permeates it with His life and power, but He arranges and controls it, having a will and individuality and a plan outside of it. He looks at His works as a builder does when he walks around the building that has risen in obedience to his conception and will.

I do not know why men should ever be unwilling to accord to the origin, the sum, the entirety of mind force, that distinct individuality and will which each intelligent man or woman is conscious he or she possesses; nor is there any reason known to me for supposing that the original of mind force must exist only in a rarefied and intangible form throughout creation as so much subtle ether. If portions of it may be gathered up as they are in ourselves into distinct personalities, why may not the sum total of all assume a shape, a personality, and a visibility; why may such personality not have a habitation where its marvelous attributes may be manifested in their concentrated glory? Such a concen-

tration and manifestation accord with what we know. We reverently call it God, and the scene and special habitation of God's glory we call Heaven. This idea of a personal God, which, as it seems to me, agrees with the highest philosophy and lies at the foundation of all religion and morality, is the idea with which, in its grand completeness, the writer of the narrative starts, "In the beginning God created the Heaven and the Earth."

Observe here the particular order followed during the progress of the creative periods. Each new scene in the great drama commences in the evening, in its twilight and darkness—it ends in the light of a new morning, in which the progress made becomes apparent; just as each formation or group of strata reveals to us a progress from the close of the preceding one to the higher types of life and the more advanced stage of creation with which it closes. Further, there is not here any sharp line drawn as separating the creative acts one from the other; the day fades gradually into the night and the night opens out as imperceptibly into the day.

Now see how this language of Scripture anticipates the ripest conclusions of geological science. Formerly geologists divided the great formations of groups of strata sharply from each other, and great cataclysms were supposed to intervene. Even now there lingers in some minds the idea of great breaks and unconformabilities between these different groups; but the conviction grows that such breaks are but local, and that somewhere or other the missing strata, with their entombed remains of former life, will be found. Each new discovery in this direction points to a continuity of strata and a continuity of life from the beginning, even as it is here taught.

Let me here point out further that the particular mode in which God worked is not defined, nor is limited by time. With the crowding of the work into days (of twenty-four hours each), there grew up the idea of the necessary suddenness of the creative acts. If, however, these days expand, in accordance with ancient interpretation, into prolonged periods, the necessity for this hurry and dispatch in the creative work disappears; and apart from the merits of any particular theory of the origin and succession of created things, it seems to me as unscriptural as it is unphilo-

sophical to limit the Divine power to any one of those modes or rates of action conceived of by us. On reflection we may be quite sure that God is not confined to sudden creative acts or to slow evolving processes. In nature, as well as in grace, there are diversities of operation, but the same informing, vivifying spirit. The old order changeth, giving place to the new. God can fulfill Himself in many ways. There is therefore no need for Christians to be afraid of theories of life which demand long periods for their completion, providing such theories are in agreement with the observed phenomena of nature.

We do injury to religion when we stigmatize those who honestly differ from us as infidels. It is to be feared that scientific men are occasionally goaded into opposition, as their speculations and researches are too often met by anathema instead of argument. It is not for us to limit the Divine power in creation to the adoption of any one or more methods of working; for if in the realms of grace (as we admit) God avails Himself of the help of innumerable co-workers, why should He work solitary and along a path defined by human conceptions in the realm of nature?

I have said we need not seek to correlate the six days, or periods given in the narrative, with particular epochs in geological time, or with particular groups of strata; but it will be interesting now to point out the resemblance there is, in the general outline of the events described, between the written and the natural records. There is first the work of physical preparation, which occupies the whole of the beginning and nearly the whole of three creative days. This work begins with the reduction to order and shape of the nebulous mass of matter "without form and void." Then follows the appearance of light, which heretofore in the chaotic state of matter and without an atmosphere could not be apparent. Then comes the elaboration of the atmosphere into the density that will bear the vapors—the water above the waters—the firmament in which the fowls of heaven may fly. Then comes the defining of the characteristics of land and water.

Such is the outline told in a few words, of the history of these wonderful works of preparation which we know to have been necessary before life could exist on the earth, and they are here

placed in the order in which they have become apparent to modern scientific explorers.

In proceeding next to notice the record of the first appearance of life on the earth, as seen in vision by the writer, it will be well to discover, if we can, the prevailing thought in the prophet's mind, the color that gave its tinge to all he saw in prophetic vision. It is not hard to see that this thought was the bearing of all he saw in the successive creative acts upon the existence and well-being of man. Thus it is that when, through the dispersing mists, the sun becomes visible on the fourth day, the thought of the writer was directed, not so much to the relation of the sun and moon and the heavenly bodies generally to the universe at large as to the earth in particular, and to man's convenience. They are then designed to be "for signs and for seasons, and for days and for years." The same idea is manifested in the brief record of the creation of vegetable and animal life. These are for man. It is he whom they are to serve, and he is to rule over them. It is not, therefore, the moss and ferns with which the mind of the prophet is impressed so much as of herb yielding seed, and fruit tree yielding fruit. So in the animal kingdom, the writer passes by the microscopic and other lowly forms of life living in the sea, and singles out the great whales and living creatures which the waters brought forth abundantly. This consideration of how created things would serve man, seems to be the reason why the writer passes by those lowlier forms of life, that in the sea and on the land had lived for ages, and which were the harbingers of those higher and more complex forms of life on which he fixes his sight. But mark the general order. Vegetable life appears first. Now, the oldest known organism is a creature or mass of creatures of lowly form like those that now live in the ooze of deep sea, which has been found in the Laurentian rocks of Canada, but in the same oldest known rocks are also found beds of graphite which are probably the remains of a still more ancient vegetation.

Then it is not until the sixth day, and just before man himself appears on the scene, that those creatures that have to be most useful to him—"the beast of the earth and the cattle after their kind"—are called into being. Just as it is only in the

newest strata of the earth, and lying in close proximity to the bones of man himself, that the remains of the horse, the ass, the ox, the sheep, and the dog are found. Then it is as in the geological record, so here, when the earth was fitted and furnished for his reception, that man himself is made, and made in the image of God—made a little lower than the angels, and crowned with glory and honor. For this man was a man intelligent—ruling and fitted to rule, able to conceive of his Maker, and to hold converse with Him. What resemblances and approaches to the human form and to God's complete idea of a man there may have been among the living creatures after their kind which had been made before him, we do not know—but here, at the head of all creation, there is placed a man who is able to comprehend with God, His order and method in creation—whose sons tilled the ground, and whose grandsons built cities, and who was himself fitted to be the progenitor and head of the race to which was given the subjugation of all nature to its sway ; and which, despite its sin, is still the link that binds dead matter, and all the inferior creation, to the Throne and Life of God.

VIEWS AND REVIEWS.

THE BASIS OF MORALITY.—The only sufficient basis for a durable and pure morality is the revealed will of God.

In the recent trial of Herr Most, the anarchist, the prisoner was asked whether he believed in a Supreme Being. His counsel interposed an objection on the ground that the question was unconstitutional, since the constitution of the State of New York prohibits any attempt to prejudice a jury against a man because of his religious belief. Mr. Nicol, representing the District Attorney, argued that the question was admissible, and a war of words ensued which was rapidly assuming the form of a theological dispute, when the Judge interfered. Judge Cowing affirmed that, in his experience, oaths did not have much restraining effect upon people if they were bent upon lying, whether they believed in a Supreme Being or not; and, for his part, he would be willing to see the usual oaths administered in courts of justice abolished. Still, he would permit the question, and leave it for the jury to decide how far Herr Most's answer to it disqualified him as a witness. The prisoner then replied that he did not believe in a Supreme Being.

The fact is interesting in this connection mainly because it is typical of many which give to the question before us, as to the Basis of Morality, an exceedingly practical aspect. It is not merely a curious inquiry into themes of abstract moral philosophy. It has its roots there, but its branches wave in the sunshine of every-day experience, and its applications are as numerous as the moral acts of responsible beings.

The remark of Judge Cowing in the trial just referred to, that, so far as his experience goes, there is little if any deterrent power in the oath administered in courts of justice, and that, if a person is bent upon lying, he will lie quite as soon whether he believes in a Supreme Being or not, is an interesting illustration in practical life of the assertion of J. S. Mill in his *Essay on the Utility of Religion*. Mr. Mill says that "the religious motive when divorced from that of public opinion is powerless." He also says

that the "oath administered in courts of justice is regarded as a mere formality, destitute of any serious meaning in the sight of Deity; and that therefore the most scrupulous person, even if he reproach himself for having taken an oath which no one deems fit to keep, does not in his conscience tax himself with the guilt of perjury, but only with the profanation of a ceremony."

Doubtless this is true. But it is hardly calculated to convert one from a belief in the restraining power of religion, if he had ever cherished such a belief, because, as Mr. Mill frankly concedes, there is no reference to the religious principle in the administration of an oath in the courts of justice. It is, as he says, a "mere formality," a decent and venerable custom, nothing more. And, as we well know, it is not treated as anything more worthy even by such jurists as Judge Cowing. Whether such idle customs might not better be abandoned is an open question. But its consideration would not be pertinent to our subject, and we pass it by. This much, however, may be said. If Herr Most were a believer in a Supreme Being, doubtless his oath in a court of justice would be regarded by the average juror as of more consequence than it now is. Possibly his moral character might be somewhat better, although we have good reason for knowing that even the devils believe and tremble. It is at least to be hoped, that, in such a case, he might cherish more kindly feelings towards his fellow-men than he does. But, in any event, it is a consolation to those who believe that reverence for God is a sufficient basis for morality, to know that the Divine sanctions for benevolence, and justice, and truthfulness, will not be forgotten in his case any more than in that of less conspicuous and less aggravating sinners.

I have referred already to the *Essay of J. S. Mill upon the Utility of Religion*, and some of the thoughts which this *Essay* presents are worthy of a moment's consideration. It is written in the interests of the Religion of Humanity. Its main purpose is to discredit the generally received belief that a devout reverence for God is a sound basis for a durable morality. This reverence for God, he says, is invariably associated with certain views concerning future responsibility which cultivate selfishness, while the Religion of Humanity develops only the most unselfish feelings, and is therefore capable, if universally accepted, of exalting human

character to a far higher degree of excellence than it has ever yet attained. This Religion, as Mr. Mill commends it, is based upon reverence for Public Opinion. The author recommends that those who would cultivate the Religion of Humanity should select from history and from contemporary life such characters as seem to the student most worthy, and, having formed an ideal excellence out of these combined traits of loveliness, strength, and worth, should further enrich the ideal by contributions from the realms of imagination, and then should endeavor to fashion the life according to this ideal. He argues at length that self-sacrificing and exalted characters have been formed by the love of country, quite apart from all consideration of religion whatever. He refers to Cicero's *De Officiis* as justifying the belief that the "love of that larger country, the world, may be nursed into similar strength, both as a source of elevated emotion and as a principle of character." His language then is as follows: "That any man with the smallest pretensions to virtue could hesitate to sacrifice life, reputation, family, everything valuable to him, to the love of country, is a supposition which this eminent interpreter of Greek and Roman morality (Cicero) cannot entertain for a moment. If, then, persons could be trained, as we see that they were, not only to believe in theory that the good of their country was an object to which all others ought to yield, but to feel this practically as the grand duty of life, so also may they be made to feel the same obligation towards the universal good. A morality," he continues, "grounded on large and wise views of the good of the whole, neither sacrificing the individual to the aggregate nor the aggregate to the individual, but giving to duty on the one hand and to freedom and spontaneity on the other their proper province, would derive its power in the superior natures from sympathy and benevolence and the passion for ideal excellence: in the inferior from the same feelings cultivated up to the measure of their capacity with the superadded force of shame. This exalted morality," he affirms, "would not depend for its ascendancy upon any hope of reward; but the reward which might be looked for, and the thought of which would be a consolation in suffering, and a support in moments of weakness, would be not a problematical future existence, but the approbation in this of those whom we respect,

and ideally of all those, dead or living, whom we admire or venerate. For" (and I fancy that this remark deserves the respect which should always be shown to a sincere expression of filial love) "the thought that our dead parents or friends would have approved our conduct is hardly less powerful a motive than the knowledge that our living ones do approve it; and (if the repetition of his words will not be regarded as irreverent) the idea that Socrates, or Howard, or Washington, or Antoninus, or Christ would have sympathized with us, or that we are attempting to do our part in the spirit in which they did theirs, has operated on the very best minds as a strong incentive to act up to their highest feelings and convictions."

It is impossible to doubt the sincerity and honesty of conviction with which these views are presented by Mr. Mill. And it will probably be conceded that they are as respectable as any which the Utilitarian school of morals affords. Certainly they have in him as powerful an advocate as has appeared among the Utilitarians.

But the weakness of such views at their very best is obvious. For, in the first place, if morality is to depend upon Public Opinion, the question at once arises: What kind of Public Opinion, and which example of Public Opinion, shall be accepted as the guide of action? It will not do for those who insist that every man ought to cultivate his individuality up to the highest possible pitch to deny that John Stuart Mill had just as good a right to follow the Public Opinion of China as that of Europe; and there is nothing suggested in this famous Essay of his which would afford us any ground for devising upon what basis of reason or of philosophy he would discriminate in favor of the morality of Christendom above that of heathendom, except the merely fortuitous one that he was born in England. If he discovers in heathendom certain characters like Socrates, and Antoninus, and Hadrian, whom he admires, what is there in that simple fact which would discourage his neighbor from selecting for his emulation the vices of Nero, and the crimes of Caligula, or the nameless debaucheries of the Wahabites whose Public Opinion frowns upon nothing worth mentioning except polygamy and smoking tobacco? It cannot be doubted that the morality which has nothing better

or stronger or more substantial back of it than the power of Public Opinion, will degenerate just as rapidly as that Public Opinion itself, and that the rapidity with which this takes place will depend in most cases upon the devotion of the people who form it to some worshipful conception of superhuman existence.

Again, it is obvious that the Love of Humanity is a principle so different in its nature from patriotism, or the love of country, that it cannot with propriety be compared with this. And it is beyond measure surprising that so acute and careful a thinker as John Stuart Mill should not have discovered the absurdity of arguing from the one to the other.

Grant that all which he says concerning the altruism of the love of country is just; that the patriot is to be honored as one who makes a real sacrifice of life, wealth, family, and everything he has worth keeping. Where is the logic in affirming that therefore anybody on the face of the earth, if ignorant of the religious principle and uninfluenced by religious motives, would ever dream of making a like sacrifice for humanity? The two cases are utterly different. They do not stand upon the same ground at all. The one is most intimately related to the individual, as a part and parcel of himself; and his personal, family, and social interests are inseparably bound up with the welfare of his country.

But the welfare of *his* country, in every case where patriotism would be put to so severe a test as the sacrifice of life or property in its defense, must be secured at the cost of the welfare of some other country, and therefore, in the very nature of things, must lead to the indulgence of feelings which are antagonistic to the Love of Humanity so much lauded by Mr. Mill.

Take, for example, the very instance which he himself adduces, and which may be admitted as the most striking perhaps in all the annals of history. He points to the example of Sparta under the legislation of Lycurgus as illustrating through many centuries the fact that the principle of patriotism is able to achieve a complete victory over the natural inclinations of an entire people. This victory, he affirms, was very little if at all indebted to religion; for he says, "the gods of the Spartans were the same as those of other Greek states; and though, no doubt, every state of Greece believed that its particular polity had, at its first establish-

ment, some sort of Divine sanction (mostly that of the Delphian oracle), there was seldom any difficulty in obtaining the same or an equally powerful sanction for a change. It was not religion," he adds, "which formed the strength of Spartan institutions: the root of the system was devotion to Sparta, to the ideal of the country or state; which, transformed into ideal devotion to a greater country, the world, would be equal to that and far nobler achievements."

But the inconsequence of this assertion is obvious to any one who will take the trouble to reflect that patriotic love of Sparta under the legislation of Lycurgus meant the bitterest and most fatal hostility towards every other state whose interests in the least degree imperilled those of Sparta. Self-interest in such a case, however enlightened it may be, is not unallied with the grossest forms of selfishness; and selfishness is the very object which the Love of Humanity, so much commended by Mr. Mill, would exterminate.

The truth is, the Utilitarianism of Mill, like that of Bentham, is resolvable in the last analysis into the search for pleasure so much applauded by Epicurus.

Utility is only the serious side of pleasure. The support of Public Opinion can only be secured when Public Opinion has been obeyed; and to make it the chief end of one's life to be judged favorably of any man's judgment is to stunt the growth of moral excellence. And equally so the attempt to reconcile personal happiness with the happiness of one's neighbor, or the general good, or the interest of the greater number, are but so many more phases of the same fundamental error, namely, the quest of personal satisfaction in the place of right and duty. Interest is in every such case opposed to moral obligation.

To illustrate, take, if you please, the exact language of Bentham: "I have accepted as my guide the principle of interest, and I will follow it wherever it lead me." "When the moralist speaks of duty," he adds, "every one thinks of his own interest." Again, "Virtue is a skillful economist who serves his own interests." For "Social virtue (*e. g.*) is the sacrifice which a man makes of his (personal) pleasure to obtain, by serving others, the maximum of pleasure for himself."

This position is maintained by Bentham with as much enthusiasm and apparent sincerity as his disciple Mill evinces for his pet scheme of a Religion of Humanity. But it is resolvable into nothing better than a defense of selfishness. Self-interest rightly understood, according to the Utilitarians, includes the pleasure we derive from sympathy and benevolence, as well as that interchange of kindly feeling which they elicit. If all men would only accept it as a universal rule of life to give aid wherever it was required, and to recognize the solidarity of the race in all their acts, they would secure a perpetually augmenting pleasure and advantage; and, according to Bentham, morality is to be summed up in the words, "Seek thy happiness in that of others," while politics may be summed up according to same authority in these words: "Seek the happiness of all in that of each."

Now, it is undeniable that the pursuit of duty will end in the most refined and noblest pleasure; but the pursuit of pleasure as an end in life, no matter under what guise or by what path it is pursued, will result only in a steady and necessary deterioration of character. It is true that as the psalmist expresses it, "In the presence of God there is fullness of joy, and at His right hand there are pleasures for evermore." But to seek those pleasures simply is to fail to reach the presence of God; and if one has no higher motive for morality than the attainment of joys or the avoidance of griefs, his virtue will hardly be of that robust kind which can endure the "slings and arrows of outrageous fortune."

It is true enough, as the Utilitarian school affirms, that the maximum of pleasure is realized when our interests fall in with those of others, for, in the long run, "equality at least will be attained between the pleasure given up and the pleasure thereby secured."* But it would be a fatal day for all sinewy and heroic love if the best of mankind were to accept a view which makes sympathy and selfishness one and the same; which encourages a person to pursue the good of the whole solely or primarily because he will thereby secure his own personal good; and which, in moments of consuming temptation, demands a whole train of reasoning as to the relation of the individual to society, and posterity,

* *Study of Origins*.—E. de Pressensé.

and what not, before the gusts of passion or the troops of lusts which assail each one of us at times can be met, and mastered, or, at least, opposed.

A fatal objection to the doctrine of the Utilitarians is that they have no criterion of pleasure which will be universally accepted or honored. It is undeniable that a pig has certain pleasures of its own which are very real and very satisfying to a pig; and so far as a man shares with that class of animals an animal nature, with animal appetites, and desires, and passions, it is entirely conceivable that some at least amid the multitudes of men who swarm upon the earth might be satisfied with the conception of pleasure which corresponds with the nature of the pig. Now, if a refined, educated, self-disciplined, intellectual man like J. S. Mill, who has enjoyed the legacy of Christianity without contributing to its wealth, endeavors to dissuade this swinish man from his swinish habits of life, how can he succeed with the Utilitarian philosophy? What right has he to set up his standard of pleasure as any better or any more worthy of general acceptation than that of the pig? It is true that Stuart Mill affirms, "it is better to be a dissatisfied man than a satisfied pig;" and the sentiment does honor to his character. But upon what ground of Utilitarianism can this be affirmed? As Edmund de Pressense well says: "In order to establish various degrees of pleasure, we need another criterion than that of the agreeable or the useful, for these furnish us with no scale of perfection."

And then, finally, the doctrine of the Utilitarian fails to commend itself to acceptance, because it has no sanctions and no supreme authority to which it can appeal for the enforcement of its views.

If it be said that the opinion of mankind is enough, then we must ask, What is that opinion? If the general and prevailing view of right and wrong, good and evil, wisdom and folly, in any community is to be the supreme authority, then we are forced to the conclusion, as has already been intimated, that, amid the diversified and conflicting views of the various communities of men upon the face of the earth, it would be impossible for any philosopher, however wise, to arbitrate between the Chinese and the Anglo-Saxons, the Hottentots and the Hindoos, and induce

them all to accept the prevailing and generally accepted views of right and wrong of either.

We conclude, therefore, as we began, with the assertion that there is no sufficient or substantial basis for morality, except the revealed will of God. This is the basis, not simply because God is the Supreme Ruler, but because His will is in perfect accordance with the nature of things. What He declares to be right is so, not because He is an arbitrary despot, but because His will is in absolute harmony with the nature of things; and therefore all His commands are not only just and righteous, but are such as that obedience to them will lead the individual and the race to the highest blessedness of which they are capable.

Only, this blessedness cannot be obtained when it is sought. If it is aimed at directly, it is lost. It is the health of the soul. And as the health of the body is secured only by eating, and exercising, wisely and judiciously, in obedience to well-known laws, so the health of the soul can only be secured by obedience to the nature of things as expressed in the revealed will of God. And that revelation may be through nature, or by holy men.

GEORGE SHIPMAN PAYSON.

NATURAL OR SUPERNATURAL EXPLANATION OF PHENOMENA?—On page 234 of the December number of CHRISTIAN THOUGHT correspondents are invited to show why, in science, the *natural* explanation of phenomena is preferable to the *supernatural*, provided such is the fact.

The following reply is offered. Natural may be defined “conformed to the laws or order of nature” (Webster), while supernatural implies “beyond the powers or laws of nature, miraculous.”

It is assumed, as one of the admitted premises, that the exercise of miraculous power is as easy for Divine Omnipotence as the carrying out of ordinary law.

It is further understood that the so-called miraculous may be consonant with a law, as yet, however, not recognized or comprehended; while scientists believe they, partially at least, understand ordinary law, in consequence of the frequent occurrence of certain phenomena in an unvarying manner.

Under these circumstances, when instituting research into the

wondrous works of the Creator, the anxious searcher after truth (if he finds a phenomenon susceptible of explanation by tracing it to natural and understood law, instead of to a miraculous and unknown source), evinces his recognition of Divine Benevolence, and is therefore justified in preferring the former solution. Namely, it seems reasonable and agreeable to adopt this course, whenever we find the investigated phenomena explicable in accordance with other normal laws already known, *and which can consequently be obeyed*, rather than to assign these phenomena to an abnormal mysterious and, as yet, unknown law: arousing terror, more than facilitating obedience.

As an illustration, let us select the thunder-storm.

He who considers the lightning as the mysterious death-dealing agent of the Almighty, when He desires to punish sinful man, will tremble in consciousness of man's impotence, and possibly shelter himself from the deluge of rain under a lofty tree. The scientist, who believes lightning and electricity to be identical, and knows (when the equilibrium of that mode of motion is disturbed in the atmosphere or other form of matter) that the tendency is to a restoration of that mode of motion, by transmission along the best adjacent conductor, will carefully avoid the lofty tree, wet with rain, knowing it to be an almost certainly fatal conductor.

Ignorance engenders superstition and fear; a knowledge of natural law, by enabling us better to walk in obedience to the Divine command, is admirably calculated to strengthen our faith in God, and our appreciation of His Infinite Goodness, in permitting us to *know* the law, which we are expected to *obey*.

The savage sees a fetich in a stock or stone; the ignorant individual, even among civilized nations, quails before mysterious phenomena. The student of nature sees a Divine Lawgiver as the remote motive power, giving impulse to every phenomenon. The creed of the former is too often abject fear; the belief of the latter is trusting love, because acknowledging the supremacy of Divine Law and Order. The former dreads the sublime manifestations of Infinite Power; the latter views with complaisance these and similar phenomena, under the full conviction that "The Law of the Lord is perfect." RICHARD OWEN.

IT is a bright suggestion of Archdeacon Farrar's to meet the questions of infidelity with harder questions. To most of the points raised by skeptics Christendom frankly responds, "I do not know." Now let the tables be turned. "Where did matter come from? Can a dead thing create itself? Where did motion come from? Whence came life save from the finger-tip of Omnipotence? Whence came the exquisite order and design of Nature? If one told you that millions of printers' types should fortuitously shape themselves into the Divine Comedy of Dante, or the plays of Shakespeare, would you not think him a madman? Whence came consciousness? Who gave you free will? Whence came conscience?" Dr. Farrar truly says: "He who denies the existence of God in the face of such questions as these, talks simply stupendous nonsense." To concede that we cannot comprehend infinity can never weaken the position of a Christian. Clearly apprehend it, and the belief in God's power and His providence logically follow.

To widen, purify, and make stable; to save from the building of unsubstantial air-castles, and from blind clasping of objects unworthy of worship—this is what science should do for religion. To inspire and enable and crown; to turn from peering and picking altogether in the dust; to look up to the heavens—this is what religion should do for science. Playing no hostile nor rival, nor even independent strains—but each in sweet concord and Divine correspondence, joining in the same holy anthem—thus knowledge and reverence, mind and soul, all "according well may make one music as before, but vaster."

JAMES THOMPSON BIXBY.

OUR NEXT SUMMER SCHOOL.—It is expected that in the next number of *CHRISTIAN THOUGHT* we shall be able to announce the full programme of the Eleventh Summer School of Christian Philosophy which is to begin on the 25th of next July, and is to be held at Round Lake, a delightful place between Troy and Saratoga, in the State of New York. Every accommodation is offered the Institute, and there is the prospect of a very large gathering. The following gentlemen have already consented to lecture: Hon. Kemp P. Battle, President of the University of North Carolina; Prof. George S. Fullerton, of the University of Pennsylvania; Dr. Horace C. Hovey, of Bridgeport, Conn.; and Prof. Francis H. Smith, of the University of Virginia. Other gentlemen are considering invitations.

It has been suggested that there are members of the Institute who cannot be present, but who might contribute short articles or letters on subjects within the lines of the Institute. All are cordially invited to forward papers, longer or shorter, which shall be carefully considered by a committee and prepared to be read and discussed, and perhaps published. It is believed that this would add greatly to the interest of the School.

Let such papers be forwarded as early as practicable to the Secretary, Mr. Charles M. Davis, 4 Winthrop Place, New York.

MONTHLY MEETINGS.

By the Secretary.

THE regular Monthly Meeting of the Institute was held in its rooms, No. 4 Winthrop Place, Thursday, Dec. 1, 1887, at 8 P.M., the President being in the chair, and leading the devotional exercises. In the absence of the Secretary, A. L. Turner, M.D., was appointed Secretary *pro tem.* The minutes of the last meeting were read and approved. The following names of new members were announced:

James C. Brown, B.A., Bloomsburg, Pa.; Rev. Roderick Terry, New York; M. L. Wood, D.D., Shelby, N. C.; Hon. Henry E. Fries, Salem, N. C.; Rev. Francis E. Clark, Boston, Mass.; Hon. Edwin S. Jones, Minneapolis, Minn.; James Allan, New York; John G. Floyd, A.M., New York; James M. Brown, New York; George Merrill, A.B., New York.

George E. Strobridge, D.D., of Yonkers, New York, read a paper entitled "Depravity and its Cure." After discussion, it was resolved, "that the thanks of the Institute are due and hereby tendered to Rev. Dr. Strobridge for his able and interesting lecture, and that a copy he requested for publication in *CHRISTIAN THOUGHT*. The meeting was then adjourned.

AT the regular Monthly Meeting of the Institute held in its rooms, No. 4 Winthrop Place, Thursday, Jan. 5, 1888, at 8 P.M., the President was in the chair, and conducted the devotional exercises. The minutes of the last meeting were read and approved.

The following names of new members were announced:

Hon. W. Henry Arnoux, New York; Rev. J. A. Aspinwall, Washington, D. C.; Joseph A. Shoudy, Brooklyn; James M. Williams, A.M., Ph.D., Manchester, N. H.; Mrs. Theodore Irving, New York; John J. Lafferty, M.A., D.L., Editor *Christian Advocate*, Richmond, Va.; Prof. Edgar Everhart, University of Texas, Austin, Texas.

The Secretary read the following extracts from letters lately received: Col. John M. Patton, of Ashland, Va., writes: "No. 3, Vol. V., of *CHRISTIAN THOUGHT* is splendid. The two articles, 'Religion of Humanity' and 'Comparative Religion,' are not surpassed, in my view, by any previous articles."

Rev. Joseph Cook writes from Boston: "Be assured that I shall do my best, as opportunity offers, to serve your noble plans."

Rev. Dr. J. W. Lowber, Fort Worth, Texas, writes: "I regard the American Institute of Christian Philosophy as one of the most important enterprises in this country. What a nation or individual is philosophically, that nation or individual will be religiously. A nation that is materialistic in philosophy will be materialistic in religion. An individual who is a materialist in philosophy will be a materialist or soul-sleeper in religion."

Mr. Nishan G. Condayan, an Armenian in the Bible House at Constantinople, Turkey, who has been a reader of *CHRISTIAN THOUGHT* for several years, writes: "There are two friends of mine (one being one of the Professors at the Robert College, and the other one of the translators to the mission paper of the Bible

House here), to whom I regularly lend CHRISTIAN THOUGHT after I have read it through; and much of its contents is utilized in an Armenian periodical through the professor above mentioned, who is one of the helpers."

Sir J. W. Dawson, Dec. 10, 1887, writes: "I very much value CHRISTIAN THOUGHT, as a useful exponent of Christian principles, and which I trust may long continue to diffuse its light. I have now in the press a work entitled a 'Modern Science in Bible Lands,' which will treat of some new applications of science in relation to the Bible which may interest you."

Prof. W. T. Harris, Concord, Mass., writes: "Dec. 19th, '87. I am sorry to lose again the opportunity of meeting the Summer School of Christian Philosophy, and of becoming personally related to you in your great work. But I cannot next summer on account of a plan I have formed to visit Europe then. Hoping that I shall be more fortunate next time, I am, etc."

Rt. Rev. Bishop Littlejohn, Garden City, L. I., writes: "Dec. 17, 1887. I beg to express my warm appreciation of your labors as the chief executive officer of the American Institute of Christian Philosophy. I regard the work it is doing as one of the most hopeful symptoms of the times, and I am thankful for the ability and sound learning which uniformly characterize the pages of CHRISTIAN THOUGHT—one of the very *few* periodical issues of the day that I always welcome to my study and read with great satisfaction. I trust that you have all needful support and encouragement in the grave and important duties devolved upon you."

The Secretary read a paper written for the Institute by Rev. E. A. Davies, F.R.G.S., of Manchester, England, on "The Biblical Account of the Creation, Read in the Light of Modern Science." Remarks were made by Mr. Delolme Benedict, Mr. S. H. Wilder, and Dr. Deems.

The meeting was then adjourned.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift, will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 71 Bible House, New York.]

DR. HENRY C. MCCOOK's church happens to be near the University of Pennsylvania, in Philadelphia. The Doctor has pursued studies in natural philosophy for years. He has proved very attractive to his young neighbors of the University by using his knowledge in the pulpit. He has delivered a series of popular discourses on Scripture truths derived from facts in nature. His custom was to introduce each discourse by a prelude, giving an explanation of natural fact chosen as a symbol. Twenty of these discourses have been collected into a volume with the title "THE GOSPEL IN NATURE." It is delightful reading. We recommend that it be read aloud in intelligent families. We are sure that thus there would be formed in the young people a taste for science, and a more generous appreciation of religious truth. Wilbur B. Ketcham, publisher, 71 Bible House, N. Y. Price, \$1.25 net.

Messrs. S. C. Griggs & Co., Chicago, have added to their philosophical series "HEGEL'S PHILOSOPHY OF THE STATE AND OF HISTORY": an Exposition by George S. Morris, Professor of Philosophy in the University of Michigan. We have spoken of this series before. The volumes are not translations. To many persons the works in this series are almost as intelligible in the original as in an ordinary English translation. Unless a man has had special training in metaphysics, he would need a teacher to explain Hegel at almost every step. But this volume is really an *exposition*, and an ordinarily well-educated person, who will peruse Prof. Morris's pages with proper attention, will understand Hegel's thought and methods. Six volumes have appeared. They are well printed and uniform. The price, each, is \$1.25. The whole six, in paper box, cost \$5. We advise our readers to send to the publishers for a circular. The series forms a library of modern German thought.

CHRISTIAN THOUGHT.

THE ABSOLUTE, A PERSON.

[A Lecture delivered before the American Institute of Christian Philosophy, August 25, 1887.]

BY THOMAS HILL, D.D., LL.D.,

Formerly President of Harvard University.

LANGUAGE is necessarily an imperfect instrument for conveying thought. Even in the mathematics and exact sciences, it is found almost impossible to invent expressions which shall be incapable of being misunderstood. The symbols are apt, from the beginning, to fail in not giving quite all of the intended meaning; and very soon they are found to fail in the opposite direction also, and to convey meanings not intended. In the higher sciences of politics, ethics, and philosophy, the evil is still more troublesome. Misunderstandings continually arise, because we use words in an entirely different sense from that in which our hearers use them.

When Emerson first uttered his poetic echoes of Eastern Pantheism, and Henry Ware, Jr., replied in an earnest defense of Theism, I found in Cambridge a somewhat cultivated lady (who had written and published popular stories), siding earnestly with Dr. Ware in his belief in a Personal Deity; but, on cross-examination, explaining that by "personal" she understood, "possessing a body of human form."

I thought her remarkably ignorant, not only of theology, but of the use of the English language. But now, after the lapse of nearly fifty years, I find the same curious misconception prevalent among partially educated people. A lady has been lecturing this very spring, in Portland, with such sweetness and ability as to

delight a large circle of hearers, who begged for a repetition of her course. She was eloquent against believing in a personal God; but she understood that a person is a skeleton clothed with flesh and blood; and, in her real thought, she was an earnest believer in the doctrine which, in her mistaken use of English, she vehemently denied.

These remarks may serve as my apology, if at the beginning of my essay I endeavor to define my own use of the words of my thesis—The Absolute, a Person.

The phrase, the Absolute, is used in philosophy in three or four cognate senses. I shall endeavor to confine myself in the present essay to using it in only one of those senses—namely, the sense of absolute being. Ordinary forms of being are dependent, for existence, on more general pre-existent forms; and as we examine those more general forms of being, we are gradually but invariably led to assume one original or ultimate ground of being, which is absolutely independent; this is absolute being, and emphatically called the absolute. It is of this that I predicate personality, and affirm that the absolute is a person.

The word person has, on the other hand, never had but one philosophical meaning, and even its legal meaning is hardly more than a metaphorical use of its philosophical meaning. That curious misunderstanding, or misapplication, of the word, by which it is applied to the body, has never, so far as I know, entered into any philosophic discussion; but is wholly confined to literature, or to colloquial freedom of speech.

Yet the one philosophical meaning has in it several shades and degrees of force; and I shall endeavor to confine myself to that shade of meaning which Locke gives it, “An intelligent being which can consider itself as itself.” The difficulty of defining the word must be freely acknowledged, while we still maintain that in spite of this difficulty, the whole philosophic world has substantially the same idea attached to the word. No botanist can define sharply the distinction between a plum and a cherry; and yet all men, botanists or not, distinguish the two fruits very easily.

There is no question as to the difference between time and space, but there is a great difficulty in defining either. The in-

organic world seems governed by motions, under laws and conditions which tend constantly to bring all things to rest in fixed geometric forms. The inorganic is thus primarily an embodiment of space ; it is only secondarily related to time, as a means through the motions of light, heat, etc., of manifesting space to persons. The organic world is, on the contrary, in all its laws, progressive, rhythmic ; and has in itself, as organic, no tendency to stable equilibrium or fixed form ; it assumes fixed forms only in death. The organic world is thus primarily an embodiment of time, and only secondarily bound in space ; it is no more capable of reduction to the same series with the inorganic, than divisions of time are with geometrical diagrams.

Space is masculine,—geometry, physics, anatomy, appeal to the intellect alone ; time is feminine,—music, coloring, plants and animals appeal to the heart also.

Life thus appealing to the whole nature shows itself under varied aspects. The gap between inorganic and organic, between lifeless and living, depends upon the essential difference between duration and extension, that is, between time and space. We cannot conceive, therefore, any mode of bridging it over, except in words. We may talk metaphorically of elective affinities in the chemical elements, of the fickleness of nitrogen, and the steadfastness of oxygen ; but all physical science leads to the induction that the life of the plant and the animal is something totally dissimilar to chemical action and reaction. The latter produce stable forms, or constantly tend to their production. Under their sole control the end is a universal death. But life, on the other hand, is, in its very essence, changing. The organic world is the embodiment of time ; it is a system of chronometers, tending, however, to an incessant variation of action. This is, as I conceive, the real force of Aristotle's dictum that motion is, in its own essence, local, that is, confined in space ; and cyclical, that is, periodic in its motion. I cannot believe that those fully apprehend the thought of Aristotle, who have given to his words *εν κυκλῳ*, the meaning circular, and made it refer solely to the movement of the heavenly bodies. The whole drift of his reasoning, it appears to me, requires us to understand the phrase as meaning, not circular, but cyclical ; and his reference to the

primum mobile, or sphere of the fixed stars, is the grandest illustration, not the sole manifestation, of his truth. Motion, he says, is confined in a limited space. Were it not, a moving body would pass beyond the reach of our observation; all motion, therefore, observed by man is limited in its extent. But inasmuch as we never see motion beginning or ending, it follows that motion must be periodic. Thus Aristotle, in the fourth century before Christ, announces that axiom which, within our own remembrance, created such a sensation of admiration and surprise, when applied by Peirce to the simplification of a tedious demonstration in analytical mechanics. Peirce assumed, as self-evident, that if a line is wholly enclosed within a given space, and within that space has neither beginning nor end, it must be a re-entering curve. This is simply putting into the geometrical form Aristotle's mechanical dictum, that since motion is never spontaneous, a motion confined in space must be a cyclical motion and its variations be periodic.

But, in the organic world, there are three widely distinguished classes of beings. The lowest embraces the plants, which, although containing in themselves an element not referable to mechanic forces alone, since it leads constantly to new forms, do not appear to have any capacity of sensation. Certain forms, like the mimosa or like the insectivorous plants, simulate sensation in a wonderful manner, yet, on the whole, have probably nothing analogous to true sensation. In the animal kingdom we have a true sensitiveness, which implies some degree of consciousness. But consciousness among the animals rises only to certain limits. The lowest forms of life, take the sponges for example, appear to be sensitive; that is to say, they apparently feel, shrinking from touch, or even from light; but their sensations are so feeble, that we hesitate to say that they are conscious. Going upward in the scale of animal life, we presently find creatures giving evidence, not only of sensation, but of thought. They not only feel, but they know. They have a measure of intelligence, and apparently think about themselves; that is, they know what they want and lay plans to obtain it. We have no doubt that they are distinctly conscious, and yet they give no evidence of being conscious of their own consciousness, of ever speculating

concerning their origin and their destiny. They are not persons, in the sense of the word as given by Locke. They give no evidence of thinking about thought. They give no evidence of knowing themselves, in the sense of considering their own mental action. They have feeling, but there is no indication of their having those feelings which are the glory of manhood; that divine thirst for knowledge, that glow of universal philanthropy, that sense of absolute, universal obligation, which men feel. They have no will, in the higher sense of will; they do not concentrate their faculties to the government of themselves throughout the whole course of their lives in obedience to a universal moral law. It is these higher manifestations of consciousness, as self-consciousness leading to self-control, which constitute a person. A person, in philosophy, is the highest form of conscious life. By affirming that the first cause of the universe, the absolute Being upon whom all being depends, is a Person, we mean to affirm that this eternally omnipresent cause of all is intelligent omniscience; knowing Himself, as well as knowing His creatures. In attributing to Him personality we have no reference to His mode of existence, which the Christian theologian, equally with the pantheist and the agnostic, admits to be unsearchable by the finite mind. We mean that He knows all things perfectly, and has also a perfect knowledge of Himself. But we men know ourselves very imperfectly; we may therefore say, not only that God is a Person, but that He is the only perfect Person. He is also filled with an infinite love of all that is good, and is ever carrying forward, with inflexible, almighty power, eternal purposes of beneficence. The Being of beings is always and everywhere acting, sustaining all things by His power, guiding all things by His unerring unlimited knowledge, under the ceaseless impulse of infinite love. He is also ever filled with an ineffable bliss in the consciousness of Himself and of His own work. This is what Christian thought signifies by a personal God. This is the first great article of Jewish and Christian Faith.

The earliest attempt, with which I am acquainted, to sustain this thesis by philosophic argument is that of Aristotle, in the fourth century before Christ. His writings are somewhat obscure, especially to those who do not sympathize with his views.

I have recently been reading again a passage upon which I accidentally stumbled some years ago. It gave me great pleasure at that time, and I have often recalled it; but, not having his works at hand, did not read it again until last winter, when I learned that the Concord School of Philosophy would discuss Aristotle the present summer. This led me to procure Bonitz's edition and re-read the whole carefully. Subsequently I read St. Hilaire's translation, and also Kirchmann's. I was very much surprised to find that the Frenchman, in his somewhat periphrastic translation, came much nearer to my understanding of the original than did the German. While the German translation was, on the whole, verbally accurate, yet it seemed to me, here and there, to miss the precise force of the argument. I was amazed at the boldness with which Kirchmann, having thus missed, as I thought, the connection of Aristotle's reasoning, pronounced it pure sophistry, and so weak that it was not worth while to expose its weakness. From my own previous reading of the original I was much more inclined to agree with St. Hilaire's strong words of eulogium, and declare that Christianity could scarce go further. We are told that Aristotle had personal acquaintance, and even intimacy, with a Jew. It is possible, therefore, and even probable, that his mind was turned toward a monotheistic view of the Divine nature by this reflected light from Moses. But his mode of handling the subject and arguing upon it is wholly his own. I will attempt to give a summary of his reasoning.

He begins by a discussion of real being. A real being is a being which may be, at least, conceived as having a separate, independent existence. It is evident that all merely phenomenal being must depend for existence upon real being. Now we may conceive real being either as consisting simply of body—material; or as having body and soul, or as having no other attributes known to us than intellectual and moral attributes. Again, the properties of real being may be conceived either as lying in potentiality, inactive, or as in a state of energy, that is, of action. It is evident that it is in this latter state alone that they can sustain apparent or phenomenal being. Furthermore, of the three conceivable forms of real being, the first and second, being partly

body, are physical; that is to say, confined to certain spaces and capable of motion, while the third is immovable, that is to say, it is not known through a limitation to local places or finite times. But although the physical substances having a body may be conceived as real being, that is, as existing independently, they cannot be conceived as moving without something in action, in energy, to produce that motion. But motion itself, as observed, appears to be eternal, since it always comes from an antecedent form of motion and passes into a subsequent form. We do not, therefore, find a cause for motion itself by merely tracing it back to a moving body whose motion equally needs a cause; but the real cause of motion must lie in the third kind of real being, which is immovable. This third immovable real being must thus have ever been from eternity, in action, causing all motion. Physical or material being is, therefore, at least in that sense, dependent upon immovable being; and the third, the immovable, real being is, in the highest sense, the only real being. Motion, as observed by man, is confined to space and time. It is therefore always cyclical. But motion springs from that which is immovable, not conditioned in space and time, whose powers are, from eternity to eternity, in a state of energy, of action. If any man should ask how that which is immovable can cause motion, he may be referred to the familiar fact, that what is intelligible stimulates the intellect to action, and what is desirable draws a man to its pursuit; while yet intelligibility and desirability are, in themselves, immaterial and immovable qualities.

But in which real being are those qualities, the intelligible and the desirable, posited? Evidently in the single and only really real being; which is the immovable. The words single and only, Aristotle explains, are not used as synonymous; the word only refers to the fact that there is no other being like it, while the word single refers to the nature of the being, as having unity in itself. The changes which take place in nature are not aimless; they evidently lead toward ends, and these ends, or objects, reside, as we have just shown, in the being which is immovable. That which is changed, or moved, can evidently pass into another condition from that in which it now is; therefore it has potential capacities. But the real being, which, itself immovable and

unchangeable, produces motion, cannot be other than it is; it has no powers in potentiality, it is always of necessity in action; were its powers once sunken in potentiality there would evidently be no power to call them into action.

Such an original real being we are of necessity compelled to admit, and also to admit its perfection, in all respects. The necessity for these admissions is threefold; there must be an origin of the energies of the universe; there must be a cause of the harmonies and symmetries perceived in it; and there must be an explanation for the unity which binds all harmonies and symmetries together.

So far I have been giving a very brief summary of Aristotle's argument. I can now pass to a more nearly literal translation of the closing passage.

"On such an origin," says Aristotle, "heaven and nature are dependent. Its life is similar to the highest states into which we, at rare moments, ascend. But with it a ceaseless activity, which is impossible with us, is ceaseless joy; with perception, thought, foresight and memory, always awake, and giving the highest pleasure. The self-existent thought dwells on that which is best in itself; the highest thought rests in the highest themes. That highest intellect, in seizing on the intelligible, grasps itself; for the intelligible is generated by that mind grasping itself in thought, so that in that mind the thinker and the thought become the same. For that which exists, and which can grasp the intelligible, is mind, and its activity consists in its holding fast the intelligible. Thus the divinity which belongs to all intelligence, belongs peculiarly to the highest real being, to whom we must attribute a perpetual open vision of truth, the sweetest and the best. If God is thus always blessed, as we at rare intervals are, it is wonderful; it is even more wonderful, if that blessedness is far greater than ours, and He is thus eternally and infinitely blessed. Life, also, is His; for activity of mind is life, and He is activity; and His self-existent activity is the highest life and eternal life. We affirm God to be eternally the highest intelligent, living being; so that life and eternal continuous existence belong to God, for this is God."

Aristotle adds, that those greatly err who, from the fact that

the seed does not possess the beauty of the flower, draw the inference that goodness and beauty need not be attributed to the original cause. But, replies Aristotle, the seed was only an intermediate link; the flower which produced the seed, possessed the beauty which lay in potentiality while passing through the seed, to the next generation of flowers. The beauty and order of the cosmos cannot originate in chaos: it can spring only from an infinite, indivisible, indestructible, unalterable being, who has the intelligence, and the power to call the cosmos into existence, and sustain it through its countless ages of varying phenomena.

Aristotle's argument, as I apprehend its force, is perfectly general in its character, and is misconceived by those who confound his grand physical illustration from the movement of the heavenly bodies with his general metaphysical reasoning. They further misapprehend it by translating circular, instead of cyclical. Kirchmann caps the climax of misinterpretation, as it seems to me, when he takes the illustration of the possibility of the immovable producing motion, as a statement of the actual process in all cases; and therefore represents Aristotle as saying that the heavenly bodies are moved by their perception of the beauty and loveliness of the Divine Being.

Aristotle's argument may be briefly restated in modern forms of thought and language, somewhat as follows: Matter is inert, it has a capacity of motion, but it never moves of itself, nor ceases motion of itself; its motion is received from and transmitted to other portions of matter. For the original cause of motion we must therefore look to a primal being which is not material, nor subject to motion. Such a being resides in every organized creature. Even the plant, much more the animal, has the power of originating new forms of motion, guiding the forces of nature; and therefore in strict philosophy must be conceived as having at least an infinitesimal power of originating motion. A steam-engine of ponderous magnitude and terrific power may be so contrived that an infant can, by touching a delicate electric button, set the whole in motion; but the engine cannot start of itself, it needs the infinitesimal force of the infant's touch. That infant's body is an engine, which shall in maturity perchance have won-

derful capacities; but it must depend for being set in action always on the delicate electric touch of thought.

Men and animals are not, however, the primal causes of the movement of the universe, some of which movements they guide. For that primal cause we must look to a higher, an eternal being. That being must, also, have been in eternal activity—else we should need to go to a higher eternal being which should call out its activity. Moreover the motions of the world are rhythmical, harmonious, intelligible, and therefore we must posit intelligence in the primal being, an intelligence which appreciates rhythm and harmony, and creates them. Furthermore these rhythmic movements of nature are all interlinked, so that we are estopped from admitting different primal minds, and must admit that the cosmos of perfect unity sprang from the thought of one Infinite Person.

There is a much shorter road to the same conclusion, and there are many consilient lines which lead in the same direction.

Before turning to examine any of them, let us, however, briefly notice an objection which is frequently brought to bear against the whole drift of the argument. It is said that it is impossible to admit that the absolute is a person, because the absolute must also be infinite, while personality is of necessity finite. All thought, it is said, must of necessity be consecutive, and limited to the object of thought; therefore the infinite absolute cannot be represented as thinking.

In reply to this objection, I would say that the objection is in its very form suspicious. We may always, upon all subjects, suspect the validity of reasoning which starts from an infinite premise. In general terms it is always safer to argue toward infinity than to argue from it. For example: if the relation of two beings suffers no change, when both beings are indefinitely enlarged through the same process, then the relation remains the same when both beings become infinite. Yet if we commence our examination with them in that infinite state we may be utterly unable to tell what the relation is, or what it would be, were the beings reduced to finitude.

If we expand gradually our conceptions of the fundamental attributes of personality, we find no contradiction in the idea of

indefinite expansion. Start with the most limited intelligence, for example, and picture a series of higher and higher intelligence, through the animals to man, through men of various grades up to the most wonderful genius, enlarge your imagination to the pictures of superior beings—your imaginations and pictures are, it is true, always of finite beings—that is, all that a finite imagination can picture. But there is no self-contradiction in your highest forms, nor is there in the conception of a series of beings rising indefinitely in intellectual power. There is, therefore, nothing absurd in conceiving the existence of an infinite intellect, although the finiteness of our powers must forever prevent our really picturing Him in our imagination.

It is easy in a similar way, by imagining an indefinite series, to show what powers and moods of our finite personality are incapable of indefinite expansion, and cannot therefore be assigned to the absolute, or even accounted essential elements in personality, and what powers and capacities are essential, and are capable of infinite expansion.

Aristotle speaks of beings which have both body and soul. There is a self-styled philosophy at the present day, which has revived the old opinion that the body is the whole man, and that the soul is simply the body considered in its higher functions of thought, feeling, and will. If that were so, matter would be the real being, and the absolute would have material properties. For the very conception of the absolute is that it is the source of all being, itself in the strictest sense the only real being, and therefore possessed of all the essential attributes of real being. Now what are the essential attributes of real being?

I answer that whether I am, as Aristotle says, a body and soul, or am, as Lucretius sung, a body only, in either case I am more certain of my personality than of my corporal nature. All men are certain of their own thought, and feeling, and will; of that they cannot doubt. Some philosophers have doubted whether matter exists, and have thought their own bodies a mere illusion of their own thought. (Some persons at the present day maintain that opinion vehemently, and say that, therefore, all bodily diseases are, *a fortiori*, a subjective illusion, and may be banished by a mental process. Simply refuse to believe that you

are sick, they say, and you are well.) But I suppose no sane man ever doubted his own personal existence, ever doubted that he had thoughts, feelings, and volitions. His own existence is, to every man, the most certain of all truths, and his own being is the being of which he knows the existence with the most absolute certainty. But now how does he know it? Evidently by his conscious thought, his powers of personality. Those are the attributes, the only attributes concerning which he is certain, of the being of whose existence he is most certain. Therefore they are attributes also of the absolute, the being which possesses in the highest degree all the real attributes of real being.

Or to put it again more briefly: I am more sure of my own existence as a being which thinks, feels, and wills, than I am of anything else; I am thus sure that thought, feeling and will are attributes of being; and by logical necessity must attribute them to the Being of beings. Personality is the only attribute of being, concerning which a man cannot possibly have a doubt. He knows that he is, and that he is a person; therefore, logically he should know that the source of all being is a person.

Matter is not, I believe, an illusion. And yet when we attempt to pin it down, it resolves itself into a surprising form. The atom seems, at first view, a definite piece of solid substance, of a certain size, shape, and weight; an atom of hydrogen, for example, bearing the same relation to a medium-sized apple which such an apple does to the earth. But on a closer scrutiny, all that we can positively affirm is, that the atoms are centres of force, capable of acting, in definite manners, upon other centres of force. Matter is thus reduced to a series of rhythmic movements of points in space. All the energy which moves these points finds its substratum of being only in the absolute and immovable being. The rhythmic movements are all intelligible; or at least so many of them have proved to be intelligible to man, that we inevitably infer that all are intelligible in themselves. Hence we must assume intelligence in the absolute as the cause of this intelligibility in the cosmos.

This argument is hinted at, as I have already said, by Aristotle. It is magnificently expanded in a rhetorical (not a logical) form in a recent essay by S. R. Calthrop. It was clearly stated

by Joseph Henry in his last letter to Mr. Patterson. There is no surer proof, he said, that we are in communication with a person than receiving intelligible replies to intelligent questions. But the libraries of science are filled with the record of intelligible replies received to intelligent questions put to the author of nature by students of science. All that science really knows about nature is its multiform rhythms and symmetries. But these are intelligible, flowing from intellect; and we are under the logical necessity of seeing that nature is the work of a Divine Mind, a Divine Person.

The physical necessity in the universe resolves itself, under the scrutiny of modern science, into three forms. One is the transformation of energy through what is apparently contact, as by impact, by pressure, and by undulation. A second is the transformation of energy, apparently without contact, by gravity. Both these forms are, in reality, but modes of transferring motion. The third form of physical necessity lies in the nature of the chemical atoms. Here is something which is not a mode of motion, but an adaptation to receive motion. The atoms of one element are all alike, and remain of necessity alike, capable only of certain motions peculiar to that element. The atoms of another substance, having a weight incommensurable with the weight of the other, are of necessity unable to take the same motion and to manifest the same properties.

Whence arise these three forms of physical necessity? This third form bears, in the adaptation of the chemical elements to each other and to the universe, such evident marks of intelligibility, and is so manifestly beyond the power of mere motion to effect, that we are under a logical necessity of ascribing it to the infinite and absolute person. The other two forms of physical necessity, consisting solely of the transference of motion, cannot contain in themselves any explanation of their own origin, since they are evidently tending rapidly toward perfectly motionless frost and darkness, and can have no tendency to start motion at the beginning. Indeed, the very first generalization in mechanics is that a body at rest has no power to move itself. Hence motion must have its origin in a being which is not material—in the Absolute Person.

All forms of physical necessity are thus subordinate to logical necessity, which demands an intellectual origin for intelligible results. But logical necessity is itself subject to moral necessity, which even more emphatically demands the postulate that the absolute is a person. No matter how clearly the reason may work out for itself a theory of moral indifference, and invite the passions to antinomian license, it can never wholly silence the voice of the categorical imperative. That moral sense within which says I ought, or I ought not, overrides all merely intellectual processes, and says, if they lead to immoral conclusions, there must be a flaw in the reasoning. It declares that the moral law is the highest law, and that the very stars in their courses will fight against the evil-doer. "There is no vice in the constitution of things," says Herbert Spencer. And this moral drift of the universe re-echoes the voice of the moral sense within, and declares that the ultimate cause of the universe is not only all-powerful and all-wise, but absolutely just and holy, "loving all being in proportion to its worth."

HISTORY: A DEMONSTRATION UNDER THE MORAL LAW.

[A Lecture delivered before the American Institute of Christian Philosophy, August 17, 1887]

BY REV. JAMES F. RIGGS, A.M.,

Bergen Point, N. J.

ALL history is sacred history. The acts of God are quite as sacred as His words. God is King, and the rulings expressed by the sword are not to be overlooked, any more than the rulings expressed by prophetic lips. Truth is always truth, whether it be "on the scaffold" or "on the throne." The position of Mr. Lowell, in "The Present Crisis," has been from the beginning the position of faith, and it has the support of revelation. But the claim made for it to-day is, that it may be brought to the proof in the experience of mankind, just as any other proposition may be so brought to proof.

It was a noteworthy step in advance when the facts of natural science were classified. Observation was the first essential, and on that ground the ancients might boast themselves. Classification was a step in advance; and now, with a vast mass of classified and systematized material, it remains for science to take the third step, marshaling, apprehending, interpreting, these groups, according to one harmonious law.

In the advance of historical investigation a like development may be noted. In the outset men were content with mere narration, true or false, noble or base, beneficent or ruinous. From the beginnings of literature we have these annals, varying greatly in value, and possessing a very different degree of power to stimulate. In the work of Thucydides we mark an evident progress, a new method. And passing down the centuries we see continued growth, increasing discernment, till in our own times we may assume that the art of historical writing, within certain limits, is a perfected art. What are those limits? They are two, the territorial and the temporal. He who is in earnest as a historiographer must be content to set territorial limits to

his task, he must not attempt too wide a field: and he must set temporal limits, he ought not to squander his force by going back too far into a dim past. If these two rules be observed, and if other circumstances be favorable for the enterprise, a masterpiece of workmanship may be the result. Thus a history of the State of New York, from the settlement of Manhattan Island, might be a perfect piece of work.

If we assume this as a statement of the present condition of the science, we are brought to the crucial question: Can these several works, each perfect in its way, be combined into one ideal perfected history of the world? Most persons, qualified to answer such a question, would reply without a moment's hesitation, that such a combination of existing works would by no means give us a perfect result.

That may be perfect as an item, which is far from perfection as a working member in an organic whole. Far more is required of an organism than mere correctness of outline, and a statue, faultless as the Belvidere Apollo, is not a man. The separate castings which go to make up a locomotive, are not a locomotive, till they have been combined with a skill fully equal to that shown in the original separate designs. Mere addition, mere piling up of these portions in a heap, gives chaos, not organic character. If we set out to combine books by mere addition it is a foregone failure, because the supreme notion is wanting. It is like laying the castings in a row on the ground, and then exclaiming triumphantly, *Here is your locomotive!*

In the course of debate the concession has often been made, that theology, or some form of moral philosophy, must in due time give us the key, and that the veritable backbone of all history must in the nature of the case be ecclesiastical history. Yet, in spite of such admissions, there has been a marked timidity in the actual handling of the facts, and those who have written have not pushed to the final issue the dictum already confessed. It seems that they have been kept back by fear of the magnitude of the task. So vast is the bulk of historical literature, and so frightfully tangled is the testimony, that many have despaired in advance. But if we begin on the right principle, with a supreme notion that is infallible, a large part of this difficulty will soon be

eliminated. It will be seen some day that crooked history is like crooked book-keeping: the expert must correct it by assuming the infallibility of certain fixed rules.

It may be doubted whether Alexander Pope really apprehended in a lofty sense the force of what he wrote, but the truth stands, that in the government of God "Whatever is, is right." Milton stated in the opening lines of his great poem, that he proposed to "Justify the ways of God to man." This is a very different assumption from that so often met, that whatever *man* does is right.

In the preparation of books treating directly or indirectly of human events, too much has been sacrificed to various popular idols for these books to hold a fair balance of truth. Too much allowance has been made in the line of national vanity. Too much has been yielded to the arbitrary defense of specific propositions, the vindication of individuals, the credit of institutions, and the correction of errors in detail. All errors of detail can be readily set right after the one great law has been made manifest. In building a line of railway it is not enough that each rail should be perfect; they must be so laid that the rolling stock may pass from rail to rail without any jar or violent change in the level. Applying this figure of speech, we may state the case thus broadly. We are satisfied with the material that exists. We are not clamoring for further minute inquiries as to the infinitesimals of by-gone ages. But our proposition is that *these rails must be relaid on a moral level*. We call for the active umpirage of a lofty Christian philosophy. In Dr. Shields' book, entitled "The Final Philosophy," it is shown that such a high use of the combined mental and moral power of the soul must some day solve the problems raised by the rivalry of theology and physical science. But why limit the claim to physical science? If the biologist in his research contemptuously tosses aside moral science as worthless, and if we demur, putting in a vigorous protest, shall we not be morally bound to do the same thing when the annalist likewise contemns the light that is from above? We are bound to demur; we stand pledged to do so; the world of Christian thought is under bonds to rescue historical science from profane handling. Rightly viewed, the records of human life constitute

a demonstration of the moral law just as conclusive as the moral, or *a priori* demonstration.

It is a very easy thing to point out apparent contradictions; it is easy to say that the riddle is insoluble; it is easy to gather together in imposing phalanx a host of the secondary causes which operate in civilization, and then ignoring revealed truth, it is easy to say, "These be thy gods, O Israel," but it is yet a falsehood to say so.

One of the missionaries of the American Board in Asia Minor had occasion, in the discharge of his duty, to cross and recross at various points a range of lofty mountains. He owned a valuable aneroid barometer, and he amused himself by carrying this instrument with him over the mountains, noting in his memorandum-book the readings on the face of the instrument, indicative of the decreased pressure of the atmosphere at those different elevations. In course of time his notes were quite numerous, and he had in a certain sense the heights carefully recorded. But he never took the trouble to reduce these aneroid figures to a uniform scale of feet, or metres, so that the note-book was after all useless. And the direct question, How high is this particular mountain? found no intelligible response. Up to the present time our vast store of historical records must be condemned on the same ground with that note-book. These treasures have not yet been rendered available by being reduced to a uniform moral scale. The praise or blame accorded to any action by a given historian, must be discounted in advance, with a view to the specific aims and prejudices of the writer. In writing of Martin Luther, a French Cardinal, an Italian Bishop, and a Protestant German professor would hold very little in common. Nevertheless, the difficulty in the task of reconciliation is not so great as it might appear. Much would be rejected outright, as hopelessly out of sympathy with the purpose of God. If civil society locks up a burglar, and hangs a pirate, on the general ground that they come into collision with the essential aims and privileges of society, then shall not the student of moral and social science condemn those opinions, those assertions that are in hopeless conflict with the true end for which human life is ordained?

How is this fundamental truth of human experience to be

ascertained? And when known, how is it to be defended against attack? It is urged as a fatal objection to the position assumed to-day, that the facts are irreconcilable. The objector says, You may very easily select a few facts, in harmony with moral science, and by placing such in the foreground, you make it appear that the finger of God is manifest in history. But, on the other hand, many facts can be selected that are hopelessly arrayed on the opposite side—facts that disprove the theory of a wise and beneficent moral government. As against the timid and partial schemes thus far brought forward in published books, it is possible that the objection may have some value. But it is a foolish as well as a mischievous doctrine, if we take into view all space and all time, because it is finally reducible to the ancient fool's creed, given in the fifty-third psalm, "There is no God." The omniscience and omnipotence of God may not appear in union with His wisdom and His love, on the scale of a day, or of a century; but let the platform be wide enough, the scaffolding high enough, and we shall take in all. Life terrestrial does not exist by itself, and ought not to be made an end in itself. It is a part, not the whole. We should see the picture from end to end, from top to bottom, background and foreground, and then we shall be in a position to verify the moral law by an *a posteriori* line of evidence. Is not the world old enough and wise enough to do this now? Ought not the twentieth century of the Christian reckoning to be a witness of this triumph?

The nineteenth century has gathered the material; the testimony has been marshaled, made available by groups, or by topics; and in view of this gigantic task accomplished, would it not be a worthy effort for the next century to utilize, to re-distribute this mass so as to prove what faith has claimed all along, that the testimony of results is in harmony with the testimony of Divine prediction?

It is true that we cannot yet see the end, in the fullest sense, but to offset that disadvantage, we have some very plain general declarations regarding the future; hence we can construct the course of events in advance, so far as that shall be requisite. We know that there is to be a judgment, and that He who gave the law will vindicate the law. But this will not be the main reliance

of the proposed reconstruction. We have at command a vast amount of testimony that has been allowed to lie idle, because writers were afraid to "moralize" and dreaded the sneer of those who cherish the most profound prejudice against revealed religion. In consequence of this shrinking from a bold course, the material has remained in a condition well-nigh chaotic. The student toils on for a time in a mass of mere detail that is bewildering, and extremely fatiguing. When at last he pauses, breathless, it is with an awkward feeling of doubt about results, and a question whether, after all, it might not be better to accept humbly the traditional opinion, and let the mind rest content at the foot of the mountain, believing indeed that the outlook from the top is magnificent, but hesitating at the enormous sacrifice required for the ascent. This self-denial we believe to be unnecessary, this grievous disappointment we regard as entirely avoidable. This superb mountain of human wisdom we insist is accessible to man, and that without the exhausting toil that has been hitherto associated therewith. In mathematics, in fictile art, in the classics or technical science, we allow that there is no royal road to learning; but in history there is a key, a wonderful means by which we may open closed gates and unlock hidden treasures. That key is compactly presented in the moral law of Mount Sinai.

On a table yonder lie a number of small pieces of polished wood, and they lie in confusion; over them bends the face of a man who wonders more and more that so small a trick as a "Chinese puzzle" should baffle him completely. But he is baffled, and confesses that he cannot make out the required diagram. Then the clue is given him, and now he wonders that he did not see the combination unaided. After this fashion is it in moral philosophy. The student cannot see how the chaos can ever make cosmos, but when he has accepted the key (always refused hitherto), he will begin to wonder at his former lack of success.

As in the one case, so in the other; the element that was wanting was the very figure needed. We do not claim that all history is written by inspired men, but we call attention to the fact that the holy light of inspiration may be cast upon all

history by the student himself, if he but carry reverently the sacred torch.

In order to the realization of this plan, in order to the benefit promised, two things are vital. First, the general characteristics of human progress must be kept clearly and constantly in mind, even at the cost of sacrificing detail. We must see the peaks, the mountain-tops, even though we lose sight of the banks and meadows below. And, second, this scheme must deal boldly and frankly with the problem of sin and suffering. It must give an intelligible account, not of the technical "origin of evil," but of the uses, of the service of evil. It must meet the question, How is it that suffering co-exists with the Divine Government?

To study this problem is worthy of the best man, in the most noble spirit, with the most complete equipment and a faith absolutely beyond faltering. History is like the marble statue of Isis, veiled; and as he was a foolish man who took a hammer to remove that marble veil, so he is a very foolish man who imagines that any mere violence will reveal truth, or that he can tear open the hidden things of God. If he would appreciate aright that beautiful veiled figure, there must be a growth in himself.

First. The general characteristics of human progress must be kept clearly and constantly in mind.

Grievous injustice has been done to the honest student of history, in the magnifying of small matters and the relative belittling of the great. Thersites is not the equal of Hector, or Agamemnon. It is not to Diogenes, or Epicurus, that we look in society for motive power. Some things can be done, and some things cannot be done, and the great facts, the momentous facts, the laws of advance that are plainly discernible, these may not be overlooked. Wandering about on the noble expanse of Salisbury plain, we very soon lose sight of a house, or a tree, but we cannot lose sight anywhere on Salisbury plain of the noble spire of the cathedral, pointing up to heaven. Wander as you may in human philosophy, lose sight as you will of one point after another, you cannot get out of sight of certain fixed laws, because they are great. And success in historical research will depend mainly on our fidelity in keeping these grand landmarks in our range, never for a moment allowing the mind to be con-

fused, or deprived of its firm grip on what is really essential in Christian philosophy.

The mind is confused by the impertinence of detail, and our claim is that this is not necessary. Let modern history, at least, be re-written, and so written that the great may not be obscured by the small, so that mole-hills and mountains may not be confounded; and then we shall see that *History is a demonstration under the moral law*. Let it be re-written, not to bring out fresh facts, for the facts are already far in excess of our needs; not to polish style, for danger lurks in such a purpose; but to carry out those logical processes to which historians often refer; processes which, logically carried out, will go far in the direction indicated.

The Christian as a theologian does not hesitate to claim that God rules throughout His creation, and within the narrow limits of his theological curriculum he will not abate one jot of this claim, either as regards the omnipotence or the beneficence of God. But look at the Christian as historian; is there not a noteworthy difference? Does he not shrink from the logic of his own theology? Does he not begin a discussion which is left incomplete? Must we then wait till this vast work has been wrought out? Certainly not! There is a path to the mountain-top, though the railway has only been projected, and this path, albeit stony and circuitous, will give us finally the same mountain outlook that they shall enjoy, who come later and make the ascent more swiftly. Our methods may be clumsy, our advance slow, and our inferences cautious, yet even so, History as we study it now is sacred; and we see in it the finger of God.

It is self-evident that the testimony of men must be, not supplemented, but expounded, interpreted by the Divine testimony.

In order to a correct apprehension of the facts, as we observe them, there must be first a lofty rule, or principle of interpretation. He who would be a wise and trustworthy prophet must be, first, acquainted with the past as it has already been interpreted by an inspired pen, and, second, he must have an infallible knowledge of the great ends, the purposes of God's government, such as the Bible only gives us.

Let us take a very small example of interpretation, in secular matters, an example that is comprised within such narrow limits that the application of these statements may be easily noted.

A few years ago there were two famous men of ancient family in France, each a claimant to the throne of the Bourbons. One of these men was commonly known as the "Comte de Chambord," the other as the "Comte de Paris." Each professed to be the King of France, and each was quietly ignored for many years. At last the Comte de Chambord died like any other man, and the newspapers all over the world fell to speculating as to the conduct of his funeral. Is it to be the funeral of a sovereign or of a citizen? Just at that time there appeared one morning in the New York City papers a telegram from Paris which read as follows:

"The Comte de Paris has declined to have anything to do with the funeral of his august relative unless he be allowed the place of chief mourner, declining positively any subordinate position in the procession."

This was an interesting piece of news, and it was correct in all important particulars. But those who were fastidious in such matters noticed that the phrasing of the telegram was not absolutely the same in all the papers. Most persons who had no special familiarity with the transatlantic system of cable messages imagined that those very words which met their eye had been telegraphed across the ocean. This is a mistake. A message did certainly come, and in substance it was correctly given to the public; but all that had really been telegraphed across the seas was a message of three words, instead of the thirty-five words contained in the published form. That message, as it clicked off from the instrument, read thus:

"Paris refused second."

In this illustration we see a clear case of interpretation. For the mind that saw through that telegram, and diluted it sufficiently to make it intelligible to the public, must have the two qualifications named already. He must have a sufficient acquaintance with the events that had gone before, and he must have a high principle of interpretation, a sympathy with the historic move-

ment of society. Or, putting it in brief, he must know the facts, and he must know human nature. With those two forms of knowledge on his side, he could instantly riddle such a telegram. Without that knowledge, it must continue to him an enigma.

Let us now picture to ourselves the timid man, the man who is saturated with a conventional regard for the present tense, trying to set forth that telegram to the public in the way that the ecclesiastical historian timidly tries to present the experience of the Church. His morning issue reads thus:

I have received a brief message from Paris couched in very unsatisfactory terms; it reads, "Paris refused second." Conjectures are already rife in our office as to the significance of this curious statement. Discussions have grouped themselves around three distinct points. These are, first, What does "Paris" mean? Does it mean the city, or the existing government, or the cultivated classes? Our junior clerk has suggested that it may possibly mean the Comte de Paris, but this foolish idea has met but little favor. And so on and on.

Is this a caricature? It is a mere copy of the manner in which words are wasted on plain facts that do not need words. Job's friends talked at length, but the answer that came out of the whirlwind was not so long. The mind of Jonah was greatly disturbed when he sat down on the east side of the city of Nineveh, in a comfortless booth, to watch and to meditate. He did meditate for many days, but the questions put to him by God were brief. When Jonah became a pupil of God, he began to make progress in true knowledge.

For nearly two thousand years the men who have controlled the pens of the world have been timid; they have been afraid to say what the old prophets of Israel used to say. They believe in God, assuredly they do; but a faint suspicion of a Zoroastrian flavor is perceptible. Civilization is deeply religious, it worships, it hurries along to lay its splendid tributes on the altars of Ormuzd, but it does yet shudder at the thought of giving offense to Ahriman.

Mark the utterance that carries weight.

"I am JEHOVAH, and there is none else: I form the light, and create darkness: I make peace, and create evil: I JEHOVAH do all these things."—*Isaiah, xlvi. 7.*

Here is a rebuke not merely to open and avowed dualism, but to any lurking taint of dualism in current thought. The crying need of modern civilization, its terrible need might be supplied by the honest study of the old Hebrew prophets, for in them they would discover that God is both Ormuzd and Ahriman. Blessing and smiting are not the messengers of two deities, but they are two pages of one lesson, set for man by "One God the Father Almighty." Is there anything essential to human life, anything vital to a sound philosophy, not found in those pages? Masses of civilized men and women, people who do not profess a personal religious faith, are yet perfectly clear and free from doubt on one point. They acknowledge that the Bible points the way to heaven for each human soul as an individual. Yet the notion that the Bible points society as a whole to happiness and wisdom has never taken hold on their understandings. Religion as a personal rule, yes. Religion as a universal atmosphere? It is a new and a vague notion to them. Why is it new? Why is it vague? Because they do not study history.

The mere scholastic examination of human records is terribly dull, and, as a moral force, is a failure. The set study of catechisms, the dogmatic pursuit of theology as a science, has not seemed to renovate mankind. But there is no reason for this marring of a wonderful study by a premature and unnatural dissection. In the Bible, from Genesis to the Revelation, narrative and dogma are given us in combination. The precepts are taught in immediate relation to the practice of men, obedient and disobedient. Theology and history ought never to be torn apart, because to do so is equally a violence to each. What God has joined together let no man put asunder. If God be King, the very notion of "secular history," the very phrase, is a contradiction. And to those who have adopted this pernicious conception as a working law, it has proved a snare. It has led them on farther and farther from the truth of the Divine government into a swamp of mingled errors and half-truths. Secondary causes, when they have been set in array by Him, who is the great First Cause, do constitute an important part of historical science, but to twist them out of this fundamental relation, to set them up as idols, this is erroneous in theory and ruinous in practice.

Is it not, then, an inference most plain, that our scheme of education should comprise more history? We would not plead for more detail, in the laborious sense, but for a higher application of truth in the moral sense. We ought not to be so cautious, so much afraid to say that God has warned, has rewarded, has punished nations. Details do not constitute history. He who seeks an acquaintance with Mr. Gladstone, would make but little progress if his method were to draw one hair from the head of the statesman, and having examined it under the microscope, should proceed to draw another hair and to examine that likewise. A student of anthropology who proceeds on a similar plan makes no headway. And without a high, spiritual philosophy to begin with, it is impossible to advance on anything but this helpless microscopic plan. No one has truly begun to study history at all, unless he has begun to see it as a whole, from beginning to end. No one can study it aright unless he has begun to make a proper chastened use of the imagination. No one is making real progress unless he is willing to confess ignorance at a multitude of points, and at the same time, confessing ignorance of detail, he holds firmly to a clear and lofty philosophy of the entire system. We are at liberty to confess that we do not know whether Pilate died in Switzerland; but we are not at liberty to confess ignorance touching the answer to his memorable question, "What is truth?" A thousand chips will never give us a notion of a tree; a thousand pieces of leather will never give us a notion of an ox; a library of books about Greece will never make us think as Plato thought. To confound the details precious to the annalist with history, precious to the Christian, is to confound the skeleton, beautifully cleaned and wired, with the man, living and loving. To set the perverse opinion of the annalist against the inspired epigram of a Paul, or an Isaiah, is to put the mechanical statement of the autopsy over against the remembrance of a brother. The groundlings can never make history, but only misapprehend it. God makes it, and they only can read it who love God.

The Psalmist exclaims with admirable force,

"Whoso is wise and will observe these things, even they shall understand the loving kindness of the Lord."—*Psalms*, civl. 43.

In the mind of King David two things were inseparable: the

facts that may be observed and the loving purpose of Him by whom the facts are ordained. There is a valuable truth quaintly expressed in the Arabic proverb :

“From the East, by the power of the Merciful One, Lights of Science, Religion, Culture.”

We of the West, may say like the Magi,

“We have seen His star in the East, and have come to worship Him.”

And we can only express a deep pity for those who have not seen that star, and who therefore cannot read the records of their fathers by its hallowed light.

Not only of individuals, is it true, but of whole nations, as Dr. Tulloch says of John Stirling,

“And he went without theological help into the great darkness.”

It is not a very hopeful voyage undertaken by the skiff that pushes out into the fog, on a heaving ocean, without a compass.

In view of this wonderful contrast, in view of the difference between light and darkness, what are the general characteristics of human progress that the student must keep in mind? One of them is the fact that no institution or custom is exactly what it seems to be. It does not accomplish exactly the amount of work that it seems to accomplish. It does not float perfectly free and undisturbed at its natural level. Why not? Because everything is tied up with something else. Institutions are like those famous race-horses of the past, that were made to show a false record of speed. The trotting horse was fastened in an ingenious way to a running horse, so that in the race the legs of the trotter moved in the conventional way, but his weight was almost carried along by his running-mate. The famous trotter, Ethan Allen, was frequently run in this way, and the result was affected accordingly. Often we see an institution that is far behind the age, carried along, and its record artificially kept up by a device like this; it is furnished with a running-mate.

Again, institutions, churches, corporate societies, universities, and even nations, continue to exist long after the causes that gave them being have disappeared. An iceberg is formed in the ravines of Greenland, it is formed where it is possible for such a

mass of ice to be formed; but carried far away to the south by current or by wind, it still exists in the highway of commerce, in a spot where it could never have been formed, in a salt sea that does not resemble the fresh-water ice in substance, and at a point where its mere presence is a threat against human life. So an institution grows, it is broken off, it leaves its proper home, it drifts with a current, it comes to be out of sympathy with its surroundings, until at last its mere existence is a threat, a peril to civilization.

Again, a portion of human society may take on a permanent form or character that is good, and identified in a permanent way with the eternal verities, and yet it may be dangerous. I have often watched a number of vessels lying at anchor in an open bay. Each ship is securely anchored to the bottom; the breeze is steady, and all lie parallel to each other, the bows of all pointing up the wind. But each captain has run out in anchoring a different length of cable. One has twenty fathoms out, another fifty, and another has run out ninety fathoms. Hence one ship has a very much larger swing than the rest, and as the wind veers about all the relations of these vessels are changed, each one moving in an arc of its own, and to the bystander on shore the relation that did exist before will appear to have been an illusion. Presently, in pursuance of obvious mechanical laws, one of these vessels so drifts about, still at anchor, as to fall in its swing across the bows of another; a heavy blow is struck, mischief is done, hot words are spoken, a ship sinks, life is the forfeit. Yet, mark, every one of those ships was truly and securely anchored to the bottom all the time. It was not that the cables snapped, nor did the anchors play them false, yet a collision did occur, while all were supposably secure. Is it not a moral allegory? Is it not a picture of those institutions that are the delight and the mystery of human society? We pride ourselves, first, that the particular entity committed to our care is safely anchored to the truth, to the immovable rocks below. And we note the fact that others do the same, we see them also riding securely, and our faith is strong. But we have paid out twenty fathoms, while our neighbors have run off fifty and ninety, and when in the night there is a veering about of the wind, sad mischief may be the con-

sequence. Seeing the mischief, shall we give way to anger? Shall we resign our commissions? Shall we recite the fool's creed? Nay, "Let the potsherds strive with the potsherds of the earth." Let man open eyes and ears; let him observe, and to him history will be a demonstration: a demonstration of man's failure, and of the wondrous Divine remedy. To such an inquirer it will be manifest that the vain schemes of pride and the shallow subterfuges of complacency are like the poisoned robe of Hercules, eating into the flesh, setting fire to the vitals. In our day we do not have to look far to see the mischief. But we need not fear to discover it or to combat it, if first we have conformed to the double rule suggested. We have noted the facts honestly, without flinching, and we have an unshaken confidence in that lofty philosophy which is given us from above.

Second. History must be such as to open up the problem of evil.

It is here that criticism is to be anticipated. The critic will say: Yes, to note the facts is well, when the facts coincide with the theory, and to press the theory is well, pointing back to such facts as you choose to select. But what have you to say in this ideal history about the facts that go counter? What explanation shall we accept of those portions of human experience that contravene the theory?

Rise high enough and you will see that the facts do not contravene the theory, that those facts are marshaled by a Divine hand, and serve a Divine purpose; you will see that in this universe (without taking account of future punishment) evil is medicine, not poison to God's children; that chastisement is education, not banishment. We are in no danger of underestimating the existence of evils. Morning and evening is our attention called to these hideous sores and frightful vices of humanity. Illiteracy is amazing, Jesuitism confident and aggressive, Mormonism is insolent, skepticism is rank and unabashed; Sabbath-breaking is deplorable, intemperance ruins soul and body, while various types of socialism and anarchy threaten the very existence of civilization itself. Yet even so, the cure is not to be found where the fool is searching for it, but where the prophet found it.

A host of intelligent persons to-day stand in the attitude of one who demanded of Mr. Coleridge, "Can you prove the truth of Christianity?" And they need to adopt the rule suggested by the keen reply of that remarkable man: "Try it." If any ask whether this theory of a moral Governor of the universe will bear inquiry, whether we can prove it to be true, our reply is the line of Coleridge: "Try it." Give a real examination to the theory on ground that is thoroughly familiar to your own mind. Do not waste a moment in idle discussion as to the wise government of God in Carthage or Rome (we shall presently be prepared to take that for granted), but ask whether the moral law be not vindicated by experimental tests in that sphere where you are qualified to judge. This is the problem of our day in regard to all those forms of downright evil that are so unhappily familiar to us. Can we find any blessing in chastisement? any value in warning? any hope in suffering? On the narrowest field possible, we do daily admit the utility of evil; the bridle for the ass, and the rod for a fool's back found throughout the world, must be admitted as evidence in the case. Men do believe in the utility of evil as an educational appliance, and on a higher level it becomes more and more obvious and the application becomes more frequent. All this is said with a narrow reference to what we can immediately see. What guess can we offer with reference to that vast application of the principle that we cannot see? When a wounded sufferer, frantic with pain, is stupefied by anæsthetics, and the surgeon goes forward with his amputation, not only is it for the benefit of the unwilling patient, but it is for the instruction of a hundred students. We who gird our loins for the race are not alone, but compassed about with a wonderful cloud of witnesses; we who suffer are not only taught by the ministry of suffering, but we are a true object lesson, and we may not say how large a class do thus receive their instruction. Some persons looked with sad eyes and heavy hearts at the hideous human torches of Nero's garden, but we, who have read about Huss, and then about Luther, who have read about Bloody Mary and then about the Puritans, we can see that there is a side of all events turned away from the beholder, and we know that in many instances that side is the most significant.

Incredulity is very largely ignorance. One witness declares an event to be wholly evil, simply because he has no experience enabling him to see the other side ; another witness of a wider experience or a fuller knowledge readily accepts the same event as a token of his Father's care. Those who contradict this position, who insist that they are acquainted with many cases of unmixed evil, evil that is not balanced by any good, they are simply begging the question. We distinctly except the one supreme fact, of Hell, because that is a matter only related to the question as it bears on future life. Our proposition is that, without counting personal rewards and punishments in a future state, this human society, of which we are a part, does daily by its experience verify the moral law. And the gross evils which exist, the diseases of society, aid in this verification just as truly as the triumphs. Let us look at two illustrations, often referred to by essayists, as cases of unmixed evil—the moral blight of the Dark Ages and modern godless poverty.

(a.) In the Dark Ages European society did certainly suffer. A terrible pall hung over the minds and souls of men. But was it an unmixed evil? Such a proposition seems to us absurd. It was a striking example of the truth that once in a thousand years our race is obliged to learn over again the solemn lesson of 1 Corinthians, i. 20.* It requires a severe discipline for a vain-glorious and selfish world to reach the only safe and honest conclusions. In this particular instance, now cited, the darkness was not absolute, but relative ; it was not punitive, but educational. If men were left to grope for a time in darkness, it was to enhance for them as a society the blessings soon revealed. For society, unlike the individual, must find its reward, or experience its losses, in this world. And we maintain that when the great European States passed out of the deep shadow of that gloomy period, society had really learned some lessons of vital import, and had listened to some cautions not needed again soon. It was another tower of Babel, begun and left unfinished ; it was another defense of human wisdom, perfectly clear and invincible in theory, hopelessly lame in actual conflict. For that

* “ Where is the wise ? where is the scribe ? where is the disputer of this world ? hath not God made foolish the wisdom of this world ? ”—1 Corinthians, i. 20.

darkness, proverbial as it is, did not arise from any lack of scheming, of boasting, of ambitious proclamations. One splendid experiment after another had been discussed, endorsed, adopted, pushed vigorously, and then abandoned. Every one of these experiments is plausible. Each of them can be so stated now as to convince a large number of its value and of its invincible force. Novelties in political life are often the worn-out fancies of those unhappy centuries. Within our present limits we can only name these varied notions, tried so long and so earnestly. The idea of a perfected social system on the feudal basis was a grand idea. Tried by results, weighed in the stern balance of the actual, it was found wanting. Imperialism was a noble dream, a magnificent impossibility. And while some features in the scheme of Charlemagne were distinctly an advance on the coarse materialism of the original Cæsars, yet it failed to survive the mighty founder. Monastic theology in various forms set forth its claims, and the boast convinced no one, just because that system was monastic. In the Papacy human wisdom found its most exalted expression, with so much of the Divine in addition that for centuries it was a living discussion whether or no the Papacy itself did carry the keys of time and of immortality by a special Divine warrant. Yet the power of the Papacy waned. And then the great Reforming Councils took up the conduct of the case, professing to arbitrate between an outraged civilization and a giant social organism, between a conscience uneasy and a tissue of customs unwarranted. That dream of reformation by act of Council was another futile experiment, another proof to men that they could not by searching find out God, and that they could not by any legislation exorcise that evil spirit that answers only to a summons from God. And while all these different agitations had been in progress, another very remarkable political method had been tried in Northern Italy. Republicanism, in several moods and tenses, had been set forth, not stupidly, not in an unworthy or a bigoted spirit, not on a narrow scale. Local self-government was tried in those vigorous states of Italy, and if it failed, in so far as it did fail, there was a reason for such a result. The darkness then was not the absence of intelligence, nor the absence of capacity. The feudal nobleman, the emperor, the monk, the

bishop, the Pope, the popular demagogue, all had striven in a thousand ways, and all had failed, just as they failed in similar efforts in the days of Noah, Daniel, and Job.

Did Europe learn nothing from all this series of defeats, this row of Babels? Europe did learn much, and what we call the revival of learning was not an accident; the printing of the Greek Testament at Alcala, and at Basle, was not an accident; the Reformation was not an accident.

“ His purposes will ripen fast,
Unfolding every hour.
The bud may have a bitter taste,
But sweet will be the flower.”

(b.) In some respects the saddest and the most perplexing of historical problems is that of the modern godless poverty of Christian lands. It requires some courage to refer to it at all, because he who follows out the logic of historical science, or reaches the same conclusion by the written revelation, he will be promptly charged with want of sympathy for the poor. Anticipating this criticism, the inquirer can only say that in his own soul he knows it to be an injustice. The apologist for the poor of our great cities creates a distinct issue by the proposition daily urged in our periodic press, that the “destroyed and begrimed masses of men and women” are godless because they are poor. History, honestly examined, is a demonstration of a very different proposition. It is a demonstration that those unhappy people are poor because they are godless.

It does not set aside this assertion to admit that something is due to interaction, both ways. We do admit that exceptional cases may be found sustaining the more popular view. And there is no doubt that when the mischief has been done, when a mass of population both poor and godless suddenly hear the Gospel presented, a new scheme to them, then poverty does seem to them a barrier in the way of its acceptance. But as a rule of general application, we maintain that the so-called charitable view is absolutely unsustained. On historic grounds it is not defensible, and on Biblical grounds it is false.

We need to remind ourselves of the very wide difference between the law of the individual and the law of society in such

matters. An individual may be a martyr, a whole state never. A single pious man may be compelled to beg his bread, a God-fearing nation never. History is not biography; it deals with masses of men, and hence what we might hesitate to believe concerning a man, we do believe concerning Man. The Ten Commandments cannot be set aside. And the city or nation that will obey shall live by them. If any body politic propose to set aside that Divine law, we know in advance the consequence that will ensue. History shows it, for the experiment has been tried so frequently that we are amazed at the repetition of such folly. And when we see bad harvests, we know there has been bad sowing.

"I have read a fiery Gospel writ in burnished rows of steel."

There is something we may read to our profit in long lines of gaunt faces, hungry eyes, and in the profane language that comes from pinched lips. Ask for the experience of the same families one generation back, two, three generations back. Is not history a demonstration that godliness is profitable for the life that now is? Does not history show evidence abundantly that the community where the First and the Fourth Commandments are kept has little anxiety about the violation of the Sixth and the Eighth?

The question is seriously put in these days, Is it really wrong for a poor man to break the Sabbath Day? Look at the community where that day is profaned, and the question answers itself. History is a demonstration.

Ought we not to possess a history of the Church of Christ that should "prove all things" and without timidity, without harshness, "hold fast that which is good?" Ought we not in our dealing with the young bring to a proof in experience that which was long ago brought to a demonstration *a priori* in the Augustinian theology? We have shown that we believe in the Word of God; let us make it equally plain that we believe in His "mighty acts."

Didactic theology is not exactly the weapon we need for daily life, and the Christian feels by intuition that his religion ought to give him something better than the mere submission

of the Mohammedan, something nobler than the selfish mysticism of Abelard, or the cold subtlety of Fichte. There is something better. The true Christian should grow strong, noble, not simply by feeding on doctrinal truth, but by absorbing the experimental. He should prize the Word of God, but he ought not to look on the Divine acts as an unholy thing. Christendom is actually in danger of ignoring that which Moses and David looked upon as self-evident. If all the pots in Jerusalem are to be like the "bowls before the altar," surely it is not for us to cast away the record of a soul as a thing common and unclean.

It may be said that human annals can be at the best but a draped statue, a veiled Isis; we reply that annals will be what man makes them. In dogmatic theology the battle has been fought out. Paul did lay those massive weapons on the anvil, he did the forging, and Augustine and Calvin have carried on the warfare under the same banner. But in literature and ethics the battle has not been fought out. It is left still for Christendom to show that God is yet governing the world. Let devout pens be enlisted, let those falsehoods that are stale, and those errors that are the outcome of unbelief, be repudiated, let all secondary causes be put back in their proper place, and then, History being re-written, a mighty demonstration of the moral law, God Himself by His Spirit will lift the veil and manifest the workmanship His own.

SCIENTIFIC EVIDENCE OF THE SUPERNATURAL.

[A Paper read before the American Institute of Christian Philosophy, February 2, 1887.]

BY HENRY S. WILLIAMS,

Professor of Geology in Cornell University.

IT is not uncommon in these days to find earnest, able scientific investigators, accustomed to the most precise discriminations of physical nature, appearing to have no conception of realities outside the world of sense. They seem to believe that if there be anything incapable of record in terms of sense impression, it is quite beyond their grasp and interest. One of our sharpest scientific observers has recently formulated this idea in the first of what he denominates the "Articles" of the "Theology of Evolution." He says, "Nothing exists excepting tridimensional matter and its properties (or behavior)." (See "American Naturalist," E. D. Cope, Dec. 1887, p. 1128.)

The philosophical outcome of this attitude is, doubtless, materialism, but these same men often profess a belief in some kind of God, and in the notion that the soul, somehow, will continue existence after death; still, as scientists, they protest that they can know nothing of such things.

From contact with many such men, I have come to regard them as not always blind, and not always hostile to the spirit of religion, but, I would say rather, short-sighted. Their intellectual eyes, by incessant application in the microscopic discriminations of science, have become morbidly myopic, and if they fail to see in nature the evidence of "things invisible" to the physical eye, it is because their eyes are focussed for too short range, and not because the evidence is not clear and convincing to normal eyes.

With a consciousness of this imperfect vision of many of my brother scientists, and believing the most of them to be as earnest, conscientious seekers for truth as can be found in any other fields of labor, I wish as one of their representatives to

bridge over, if I can, that blank interval which separates so many of the investigators of nature from the worshipers of God.

Allow me to introduce an illustration which may serve to put us in a common attitude for the consideration of this subject—an illustration drawn from the well-known properties of light as exhibited in the use of the spectroscope. When we hold a transparent glass prism between us and the sun, the light is torn into a thousand pieces, and turning our backs to its source, we find the white light of the sun reflected back into our faces in all the beautiful, differentiated colors of the rainbow. Such is the physical universe of the scientist; he knows it by the differences in color, by the position of the lines in the spectrum; and he measures and defines all that he knows of it by the rays of light it throws back into his eyes. As scientists, we say that we know nothing of light save as the world reflects it upon our senses, and also of the world we know nothing save as light illuminates it. It is only as we remove the prism of our senses that we become aware of that pure light which we cannot endure with unveiled faces.

On the one side we apprehend the prismatic colors which spell for us with their alpha, lambda, eta, theta, epsilon, iota, alpha, the truths of nature; on the other side we are viewing the "true Light that lighteth every man that cometh into the world."

To refer any event to a supernatural cause, the scientist demands that it be shown to be unexplainable by any known natural cause, and hesitates to allow that any event occurring in the order of nature is not explainable by some natural antecedent phenomenon. But it may be possible to show that he is obliged to refer back of all the observable world for explanation of events with which he is familiar.

As scientists we think we know something of the things of the world, because we are able to measure them, either their spacial dimensions, their attributes, or their relations. And when we associate with this conception of the knowable universe the conception of continuity of kind, we are led to conclude that as what we thus know is known by sense perception, therefore also the whole existing universe is material.

And so far we are reasonable, if our only light comes through the prism of sensation. When, then, we ask for evidences that shall be expressible in terms of possible sense perception, we seem to ourselves to be reasonable.

Therefore, when it is proposed that there is anything outside and non-identical in substance with the universe as thus known, the scientist assumes the attitude of confessed ignorance, and awaits evidence.

In proposing the title, "Scientific Evidence of the Supernatural," I had in mind to offer some evidence, such as the scientist is accustomed to handle and appreciate, of that of which he believes himself ignorant.

If physical measuring be an essential element in an act of knowing, we may be obliged to relegate this supernatural to the unknown or unknowable; but if knowledge be apprehension which is certain—a conviction of certainty—the way is open for the pure scientist to apprehend that which he is unable to measure in terms of sense.

I raise then the question, Is there not among the methods of science some way by which we can pass from the apprehension of objects of nature to the apprehension of a real entity outside nature? Is there no passage-way by which the materialistic scientist may attain a consciousness of the supernatural?

In answering this question, my argument will be drawn from an analysis of the processes of organic development and the method of their scientific interpretation, and then from the application of this method to the interpretation of the problems of geology.

We are all familiar with the processes of organic growth. We see an acorn fall to the ground, and, placed under conditions of moisture, of proper heat, and in the presence of proper nutrient, absorb from its environment, increase, develop, and by degrees grow into a tree. In its season it puts forth leaves, and finally produces acorns like the first, and capable of going through the same cycle of events.

The botanist, examining the acorn, can predict what will be the natural order of events in the future growth of the oak. The acorn is the natural antecedent to the oak. Without the acorn

the oak could not be; it is thus, in some sense, the cause of the oak. Again, the scientist says that the oak is latent or potentially in the acorn. These are familiar notions to us all.

When he sees the acorn the scientist knows, to a certain extent, what will follow. He does not know just how large, how symmetrical, how perfect it may grow; it may become blighted or dwarfed, it may live an hundred years. This set of particulars, he says, will be determined by the conditions of environment in which the oak expands, the weather, the soil, even accidents.

Again, examining the acorns which exhibit like characters of substance and structure, but differ slightly in form, he says of the one, it will bear round-lobed leaves and the wood will be tough and make fine ship-timber; of the other, it will bear leaves with angular lobes and the wood will be coarse, brushy, and fit only for firewood. This latter series of facts we know as well as we did the others, but the environment has nothing to do in determining them. The reason for the difference,—the one antecedent of which we gain knowledge by a minute study of the acorns,—is, that the one came from a white oak tree, the other from a red oak tree.

There are here three kinds of phenomena in the development of the acorn which can be predicted from a study of the acorn; predict, I say, because if the prediction is verified, this itself is evidence that the knowledge includes not merely an apprehension of the concrete characters of the acorn, but of the abstract relations borne by the phenomena which precede and enable the prediction and those phenomena which follow and are predicted.

These three groups of phenomena are explained as naturally preceded by three kinds of conditions:

1st. The property of growing under favorable conditions is said to *inhere in the live acorn*; it possesses the generic law of growth in common with all live acorns.

2d. The departure from some natural course of development of an oak, in irregularity or variational features, as the naturalist calls them, does not inhere in the live acorn, but is the modifying effect of the *environment* during its growth.

3d. The expression of its specific characters, as *Quercus alba*,

or *Quercus rubra*, are explained only by *its origin from a preceding oak*.

Thus we know in regard to the development of the oak three kinds of phenomena: its vital properties of growth, its variability, and its essential specific characters. The first, as the scientist explains, inheres in this particular living matter; the second is occasioned by external environment; the third is determined by its origin, by that which is anterior to its individual existence.

Now, the third, or the specific peculiarities, are regarded as finding expression all along the course of growth, and therefore the determining phenomenon, the cause of them, lies anterior to the total cycle of development of the concrete individual which exhibits them.

It is not in the environment, not in the immediately preceding characters of the oak itself, but it dates back to the source or origin of the germ.

If we were capable of separating off the cycle of development of the one individual acorn, we should find it terminating in the reproduction of a unit like the initial unit in which it begins, and thus completing a perfect cycle of changes; and though we might know every detail as it appeared in the one cycle, our capability of prediction would be wanting. What we were able in the first case to predict, was based upon our knowledge of what had taken place before in the parental oak. In other words we know, in the case of the developing oak, that the order and the specific details of development of the acorn are determined by something which existed before the cycle of individual development began.

You and I know these facts, and no scientist knows them better, though perhaps more accurately.

We know, both practically and scientifically, that, let there be given an acorn from the red oak and it will naturally develop the red oak peculiarities, and so with the acorn of the white oak. So will the germ of any species express its specific peculiarities.

But remove all evidence as to origin of the germ, and we are perfectly ignorant of what will happen. This known antecedent is that alone which enables the scientist to say what will take place in the future growth. Whether we call it invariable ante-

cedent or cause, it is evidently an essential element in the determination of what shall follow, and because we know that it is such a determining antecedent, we are able to predict.

So, too, in other cases. The reason an apple is sweet and not sour is that it is borne by a sweet apple tree. Although we know that the warm sunshine is the immediate agent in changing a green apple into a sweet, ripe one, the same sun shining on the next tree makes the green apple still more sour than it was before.

Although good soil and moisture are essential to the ripening, still the one antecedent event which determines the final sweetness to be natural in the one case and unnatural in the other, is the condition under which the first germ of the individual tree arose.

So much we may affirm as legitimate to a strict scientific method: that a determining antecedent necessarily precedes the minutest, most amorphous condition of each individual, protoplasmic germ.

Given the living germ and proper conditions, and there are certain steps of development which it is predetermined to follow.

Within certain limits the development is flexible, and adaptation to environment will result, and beyond such limits the effect of adverse environment will be destruction or cessation of the development.

In these explanations, although couched in technical phrases, we recognize familiar laws, familiar both to common thinking and to science. In regard to such series of events, seen in the development of the individual from embryo to adult, the environment plays mainly the part of condition and not of cause, and cause is almost completely anterior to environment. When once we have the predetermining antecedent, then the order of sequence of events in development stands in the relation to the individual much as properties of a mineral do to the mass exhibiting them. In the one case, however, the properties exhibit themselves immediately upon the chemical union of the elements in such proportion and mode of solidification as may be their law. In the other, time is necessary for the phenomenal expression of the details.

As the chemical combination and the mineral properties are related as antecedent and consequent, so given the embryo's origin, and the form and function of the adult follow as natural sequents. The act of production of the germ carries with it all the gradual expression of organic development which follows, just as much as the chemical union carries with it the physical properties exhibited at once by the mineral. In both cases we look anterior to the expression of specific characters for the determining cause.

So in the organic, and so in the mineral world.

Let us now see what are the problems which the study of geology presents for our interpretation.

And here I would speak also as a scientist, allowing the facts to speak for themselves without preconceptions, so far as it may be possible for me to eliminate them.

As we study the vast series of sedimentary rocks, which, if piled one above another, would reach a thickness of, at least, one hundred thousand feet, or about twenty miles, the geologist, finding evidence of ordinary slow processes of formation, such as are now going on at the sea-shores, assumes a period of time scarcely conceivable to have transpired since the bottom layers, with their trilobites and lingulellas, were laid down. There are evidences of oscillations of the continents, up and down, all along the way. What is now solid rock, forming the dry land of the world, contains fossils that, when living, could have existed only under the ocean. Great beds of marine limestone now form the summits of the Himalayas at an elevation of sixteen thousand feet above the sea, and these are of the tertiary age. But when these limestones were being formed, and the animals living whose remains are buried in them, fifteen sixteenths of the whole time from the earliest recorded animal life had already passed away.

The gorge of Niagara River is believed to have been cut out of the rock within the last seven thousand years. During that time the change in the organic life of the globe is scarcely appreciable.

Since the beginning of the Tertiary, five distinct faunas of Mammals have consecutively occupied our continent; have arisen, flourished, and each in his order has given way for the

next and become nearly extinct. When we go a little back of the Tertiary, scarcely a species that then lived is still living on the earth; a little further, and the animals are nearly all of different genera. And so, as we go back further and further in the geologic ages, the whole complexion of the inhabitants of land and sea changes, and as we trace the history of organisms, over and over again the whole animal world is repeopled; different species, different genera, different families take the places of those which had lived in vigor and abundance for periods scarcely measurable by such units of time as man is familiar with.

During this inconceivable length of time every evidence tends to confirm the opinion that at no period from the beginning of living things till the present, was there any total extinction of life, no cessation of even an abundance of life for some parts of the world. There were local changes; where the sea was teeming with life at one period, there was elevation and destruction in the next; but from the first deposition of sediment there were always lands to be worn down into sand and mud, and there were seas to receive the deposits under the waves.

As we examine the series of animal remains recorded in these rocks, we learn that there has been a gradual change. One species has given place to another, which is more closely allied morphologically to the first than to those separated from it by a greater length of time. New genera have appeared, but when a genus was once on the ground it was continuously represented by species until it dwindled in numbers and finally ceased, never to reappear. So with families; they have begun, been represented by abundance of species and genera, have reached a climax of fertility, have dwindled, and have finally passed away forever.

A few genera have lived on from the early times, reappearing here and there all along the way, binding the most ancient life of the Cambrian with the living inhabitants of the present. One genus, the *Lingulella*, one of the first to leave its record on the sands of time, is represented to-day on our sea-coasts by living shells which differ from their ancient ancestors scarcely more than two oysters from the opposite sides of the ocean, yet, since the first appeared, twenty miles thickness of sediments have been accumulated. Scarcely anything could impress one more vividly

with the continuity of events, and the unity of the forces at work in this gradual evolution of the earth and its inhabitants.

And the fact becomes conspicuous as we study minutely the march of this great procession of life. When grouped into genera and families, the first initiation of a new type of structure is expressed almost immediately by a considerable number of different specific modifications of that type. And, relative to the total period of existence of the type, it is often the case that the great bulk of the details of specific modifications are found pretty fully expressed a very short time after the first observed initiation of the new type. Of course this must be discounted by the fact that our records are very imperfect; still, spite of all allowances for imperfection of the record, over and over again as we open the pages of the old stone book, we are met with this apparent sudden outburst of a new fauna. We turn over a page, and a new chapter begins.

At the beginning of the Eocene, the lowest rocks in which true mammals appear (Marsupials had been in existence as early as the Jurassic), we find representatives and the chief kinds of this class of animals. At this first stage of their recorded existence, as Professor LeConte writes, "True placental mammals not only appear suddenly and in great numbers, but of nearly all orders. Even the highest except man—viz., monkeys," p. 517.

I cannot dwell longer on the details of this history, but what I wish to call especial attention to is this:

The geological record tells us that there has been a gradual unfolding of the organic world from the earliest traces of life till the present time. But in this march of life all has been forward, no closed cycle has been reached. Individuals have reproduced their like, as they now do, and even in the processes of ordinary generation modifications have appeared on passing from ancestor to offspring; new species, new genera, new families and orders have arisen, have flourished in abundance, and in many cases have died out and given place to others.

The unfolding has not formed cycles, but it has been a continual progress.

While, in the matter of change, it presents analogies to the developing germ, the whole series of events of this vast history

represents but a part of the cycle in the growth of a single individual organism.

If now in the case of the mineral, the properties it exhibits are only made apparent and are not determined or caused by surrounding environment, if in the case of the acorn we also deny that environment can explain, or is the determining antecedent or cause of the specific characters which it exhibits in the course of its development, then it seems logical to regard it equally legitimate to deny that environment is the determining cause of that order of development in the history of organisms with which geology acquaints us. I say determining, and not final cause, and it serves my purpose as well to say antecedent phenomena, or even explanation of what follows.

No true scientist will deny that there has been historical development or evolution of the earth and of its inhabitants, as truly as that there is a development in the organic individual.

And for both cases, we have shown that it is in full accordance with the theory and with the practice of modern science, to find the explanation of all that is specific in the individual, all that is characteristic in the history of the world, in a determining cause anterior to the cycle of events expressing them. In the case of the acorn, the antecedent being known, we show our acceptance of the sufficiency of such an antecedent by our ability to predict what will follow, and when the antecedent is unknown, by our inability so to predict. Thus we find it legitimate to infer that the explanation of the evolution of the world and of its inhabitants is anterior to the first beginning of the expression of such evolution: and if an explaining, a determining antecedent, why not cause? why not designer? why not creator?

In regard to the individual organism, we do not hesitate to say that when the first protoplasmic nucleus of the germ was differentiated, all the specific characters of the individual were as much settled and determined upon, as is a future building when the detailed drawings are finished, and the contract with the builder signed and sealed. Is it less reasonable to conclude that before the first living creature appeared upon the earth, the course of evolution was determined upon, and that this is the sufficient scientific explanation for all that is intrinsic to the evolution?

Each step of it, the initiation and characters of Trilobites of the Cambrian, the Lepidodendrons of the Carboniferous marshes, the great Ichthyosaurus that swam in Jurassic seas, the first mammals of the Eocene, and man near the close of the ages.

Call it evolution or call it creation, the name changes not the fact, the steps of progress are accounted for, not by the environment, not by chance, not by natural struggle among the elements; but scientifically, whenever we speak of origins, causes, determining or even sufficient antecedents for these phenomena of nature, we must look anterior to the whole series of the phenomena themselves. But these phenomena constitute the whole universe of nature, and the scientist deems himself ignorant of anything outside or beyond it. Hence that which we thus come to apprehend is *supra-natural*. It is that which is unknown and unknowable in terms of the phenomenal, because it is not phenomenal, but it is apprehensible, and we have apprehended it.

Hence we conclude that it is in accordance with usage in other departments of science, to affirm that the cause of all the expanding of the world of organisms, such as the paleontologist studies, is anterior to its expression, is anterior to the phenomenal universe. This being so, it is still quite the province of the paleontologist to determine what the steps of this progress are, to determine the conditions under which they took place, to trace out all the gradual modifications, variations, adaptations there recorded; but he omits a most important element in the problem when he forgets that the real explanation of the universe is outside or beyond it.

While science is able thus to grasp the notion of something outside nature, or *supra-natural*, it is not possible by these methods alone to ascertain the nature of such a supernatural cause.

Without such an explanation, science can do nothing but note the sequence of events. All that she says about progress, development, evolution, origin finds rational explanation only in such an ante-phenomenal determiner, which is but a transformation of phrase for supernatural cause, and this is our Creator, our God.

When we seek an explanation of the phenomena of organic

development as seen in the growth of the individual, we find environment, including all that occasions struggle for existence, playing quite a secondary part. The best of our scientific philosophy recognizes ancestry, which certainly precedes the physical or phenomenal appearance of the individual as the paramount element determining the particular course of the individual's development. As we so interpret the cycles of individual development, my argument is that we but generalize a known law when we predicate an anterior determining reality as the explanation of all that is intrinsic in the evolution of the world and its inhabitants. I think the argument may be taken one step farther, and, since upon the appearance of the first sensible attributes the evolution may be said to be already begun, it becomes necessary to place this determining antecedent prior to all sensible existence; that is, this antecedent supernatural determiner is immaterial.

The argument which I have here sought to bring out, does not make any less mysterious the relations between the natural and the supernatural; there is still the indefinable and indisputable distinction between the phenomenal, the things which appear, and the "invisible things since the creation of the world." But it leads us to the conviction that, although our capability of sense-perception ends with the material, our scientific apprehension does not end there.

It is necessary to take into account that which we all confess to be unseen in order rationally to explain the seen. The supernatural is the only explanation for that which fundamentally constitutes the evolution of nature.

But having come thus far, it is for the philosopher and the theologian to lead us beyond to the clearer conception of God, to remove from before our eyes the color-forming prism of our senses, and with achromatic lenses of the spirit point us to the celestial light.

We cannot close with more fitting words than those of the late Dr. Oswald Heer, the famous Swiss paleontologist, who combined in such rich harmony the vision of the scientist with the soul of the Christian: "The deeper we penetrate into nature," he wrote, "the more fervent becomes our conviction that only the belief in an Almighty and Allwise Creator, who has made

heaven and earth according to an eternally premeditated plan, can avail to solve the problems of nature and of human life."—*"Die Urwelt der Schweig,"* p. 604.

Several gentlemen made very interesting remarks after the reading of Prof. Williams's paper, among them Vice-Chancellor MacCracken, Prof. Stevenson, Mr. Wilder, and Rev. Dr. Deems. We have been able to secure a report only of Dr. MacCracken's, which we are glad to subjoin. They were nearly as follows:

"This is substantially an argument that the parts of the material universe have relations and adaptations one to the other which we cannot account for by anything in the material universe itself. The data for the argument are given perhaps as truly when science simply views the acorn mentioned by the writer, together with the earth, the air, the rain, and all that together enter into the oak, as when we view the twenty miles, depth of sediment which is described with all its wealth of evidences of ancient and varied organisms. We cannot account for the reciprocal effect of two entities except by postulating a third entity. This is an old argument, sometimes loosely called the argument from design, now more accurately named the argument from reciprocal relations or from inter-dependence.

"The writer's position is indicated by his statement that it is reasonable to deny that environment is the determining cause of that order of development in the history of organisms with which geology makes us acquainted. And, further, when he asserts that it is scientific to find the explanation of all that is characteristic in the history of the world in a determining cause anterior to the cycle of events expressing them, the writer evidently means by all that is 'characteristic' all differentiations, relations, and adaptations in the parts of the universe.

"The restricted meaning which is given to the word 'Science' should be noticed. He says, 'Scientifically we are ignorant of anything outside of and beyond these phenomena.' This limits the name of Science to what may, perhaps, be more exactly termed Empirical Science, or the knowledge of particular realities, whether by observation or by inference, including the knowledge of their unity in coexistent relations, their co-ordination in uniform

sequences, and thus of their unity in a system. I find no fault with the using of Science in this limited way, but it needs to be marked that it is so used.

"The presentation by the writer of particular realities in a fresh and striking way adds to the interest of his paper.

"The absence of any dogmatic assertions as to the natural history of organisms, and in particular as to the origin of genera, enhances the attractiveness of the essay. A degree of agnosticism just here is admissible. Unquestionably the author journeys by one of the best as well as one of the best traveled paths from the created towards the Creator. He wisely agrees that we need other help than Science, in his use of the word, to lead us to the clear conception of God—'the achromatic lenses of the spirit to point us to a celestial light.'"

THE MIRACLE OF MIRACLES.

[A letter to a young man of science.]

BY REV. W. G. BLAIKIE, D.D.

WE are often told by men of science in these days, and by young men of science in particular, that neither the Christian miracles nor any miracles can be believed, for the simple reason that they are unscientific, they are contrary to the order of nature. Science has for its great object to bring to light the laws of nature, and in our time it has been wonderfully successful in this pursuit. Everywhere it shows us the reign of law. It utterly explodes old lingering notions, the notions of superstition and of childish dreams, that things sometimes fall out irregularly and unaccountably, through mysterious causes that have no proper relation to the effects. Science shows that everything goes like clock-work; every effect is due to a suitable cause, even though we may not be able to trace it; there is no trace of irregularity in nature; from which the scientific mind is apt to infer that this has been the way from the beginning, and that as a miracle implies interruption and irregularity, no miracle can be believed by men of science.

The usual reply to this is that there are exceptions to every rule. Regularity is the rule in nature, and a very beneficial rule it is. If it were not so, we could not get through the ordinary business of life. If the sun did not keep regular hours for rising and setting; if summer sometimes came before spring and winter before autumn; if stones sometimes floated on water and timber sank to the bottom, our whole life would be a puzzle and an abortion. But though regularity is the rule in nature, it is not a necessary rule, it is not a rule without exception. Occasions may arise—few, indeed, and far between—that are very suitable to such exceptions. We Christians believe that at least three great occasions for such exceptions have occurred or will occur. The first was when man was created. The second, when he was redeemed. The third, yet to come, when he shall be judged.

For such events, and events of like magnitude and importance, the order of nature may well be interrupted. The exceptions are of such surpassing magnitude that they involve no disparagement of the rule.

But another, and, as I think, a more unanswerable reply, may be given to the objection that miracles are incredible. We may actually show a miracle. We may point to a historical Being far above nature and all her wonders, for whom no laws or forces of nature can account. In recent years, one great writer after another has tried to explain the career of Christ on natural principles. But no sooner has one writer advanced his theory than another has arisen to explode it. Like the witnesses at Christ's trial, those who testify that Christ was but a man, and His religion a mere human development, do not agree together. The Christ of history is the miracle of miracles. Let no man say that he cannot believe a miracle. In Jesus Christ you have before your eyes the most stupendous and glorious miracle the world ever saw.

Let me try to make good this assertion.

The very conception of Christ's mission to earth, according to the common view of it, must strike you as remarkable. Can you fancy it a mere imagination of man? Nothing is more plain than man's proneness to narrow, suspicious, illiberal views of God. Yet the idea of Christ's mission implies on God's part a boundless generosity and love. How came it then that men, ever prone, as all history shows, to think of God as hard to be propitiated, as an all but inexorable judge, a creditor who will not let you go till you have paid the uttermost farthing, should have reached the sublime conception of His sending His own Son to take away all our sins and to bless us with all heavenly blessings? Even the conception of the existence of such beings as the angels is a wonderful one, never dreamed of by paganism—those holy, loving beings who hover round us on errands of mercy and in whose presence there is joy over every sinner that repents. But the conception of Christ is far beyond that of the angels. It is at once bolder and deeper and brighter. Bolder, for men got only glimpses of the angels, who were but creatures after all; whereas the Word, who was with God and who was God, was made flesh

and dwelt among us. Deeper, for Christ's life had a side of sadness and suffering, alien to all our conceptions of the Son of God. But brighter at the same time, since He was made perfect by suffering and became a fountain of eternal blessing, the elixir of life, the germ of a new creation. Is this conception natural to the human heart? Does it not point to One whose ways are not our ways, nor His thoughts our thoughts? Brother, Saviour, God in one, who could have imagined the Christ? Or what member of our trembling, guilty, suspicious race would have pictured God sending this Saviour to bring back all who would come by Him to His house and His bosom? What human heart could ever have devised the first scene in Christ's life, the Nativity? The angel's sermon and the angels' song, whence where they? Forgeries? Fictions? "Glory to God in the highest, on earth peace, goodwill to men." What a heavenly aroma have these words been giving out for eighteen hundred years! What a bright, pure influence they have ever had! Whence came they? Were they devout imaginations? Was Mary a cunning deceiver? Or was not that Holy Thing that was born of her truly called the Son of God?

If we are baffled in trying to account on natural principles even for the idea of Christ, how shall we account for Christ Himself? Is not His name above every name? Where can we find one to couple with it? Renan suggests St. Francis d'Assisi. Does not the very mention of that name just show the hopelessness of the attempt? How distinct is the portrait painted in those four artless records, the Gospels, and yet how much fairer is it than the children of men! Who is not made to feel that Jesus is a man and yet above a man, a brother and yet above a brother? How wonderful that He never acts incongruously; that read which Gospel you may, it is always the same personality that is before you, and that the image is so distinct, so unexampled! Always teaching men to repent, yet never repenting Himself; bidding them seek forgiveness, yet seeking none for Himself; showing such calm majesty and consciousness of power, yet such beautiful humility; so pure in His love, so unwearied in well-doing, so self-denied in His whole life; never exercising His power merely for Himself, thinking constantly of others, and above all of His Father

in Heaven; calm in a perfect storm of trials; meek, forbearing, forgiving, and most of all as He hung on the cross. Again I ask, Is this truth or falsehood? Was this Jesus from heaven or of men? If we shall say from heaven, all is explained; if we maintain from men, then how came He to be what He was? Or if such a Being never lived, how came four illiterate men to draw such a wonderful portrait? Or if the Gospels were patchwork, cooked and cobbled by no one can tell how many hands, how came it that the picture is still so unique, so perfect? What is there to be compared to it in all the products of human imagination? Even Milton, with his grand poetical fancy, exercised and cultivated all his lifetime, utterly fails when weighed in the balances with Matthew the publican or John the fisherman, or the "great unknown" of the second century who is said by rationalists to have stolen John's name. Abdiel the seraph and Satan the fiend are but exaggerated men; but no Milton could ever blend the human and the divine together as they are blended in the four Gospels. Jesus! The painter needs to place no glory round His head. There is ineffable glory round it in every true heart, "the glory as of the only-begotten of the Father, full of grace and truth!"

And as you know well, it is not only that Jesus was so remarkable in Himself; if possible He was still more remarkable in the attachment, the boundless devotion and confidence, which He inspired. I am sure you must have felt how utterly inadequate the skeptical theories are to account for this. You may make the utmost of what they call his charming manner, his captivating conversational powers, his genial heart, and everything else that usually gives a man influence with his fellows; but how utterly insufficient are these things to account for the influence of Christ? Who else, at the highest stretch of such powers, ever achieved the thousandth part of that most peculiar influence which in all ages has belonged to Jesus? St. Bernard? Sir Philip Sidney? Martin Luther? John Wesley? Why, the very mention of their names in such a connection seems ludicrous. How remarkable that the name of the carpenter's son of Nazareth is the one and only name at which every knee has been constrained to bow, and every tongue to confess!

You must have noticed a strange peculiarity in the degree of influence He exerted on His immediate followers at two different times. While He lived they were much attached to Him; but as we know from the scene at the crucifixion, their attachment then was not invincible. Peter denied Him with oaths and curses, and for the rest, "they all forsook Him and fled." But six weeks later everything is changed. They are as bold as they had been timid, and not only throw their whole lives into His service, but have learned to despise death and even rejoice in it, if it should fall to them for His sake. To serve Him has become the sole, the absorbing, the irrepressible interest of their lives. Nothing apart from Him has any delight or attraction for them. And on they go, spreading their own convictions, gathering men and women from every quarter into their company, inspiring them with the hopes that make their own hearts bound, looking on the world as a mere painted log, for which they care nothing. On they go, conquering and to conquer, fire and sword and all implements of torture prevailing no more against them than if the blows had fallen on their shadows.

It is surely most irrational to ascribe all this to enthusiasm. The Apostles were not dreaming enthusiasts. Peter was no enthusiast when he swore that he knew not the man, or even when he said, some time after the crucifixion, "I go a-fishing." But it is plain that six weeks after Christ's death the minds of His Apostles had undergone an extraordinary change. It is impossible to give a rational explanation of their conduct, except on the supposition that they believed in His resurrection. Whether that was a reality or not, is not the question immediately before us; but surely no candid and rational person, no person with any historical insight, can doubt for a moment that the Apostles believed in that event. In no other way can you account for the extraordinary change that came over them. Formerly they had known Him as a friend, a teacher, a companion; thereafter they believed in Him as a Divine Saviour. Formerly they felt the fascinating influence of a delightful teacher, a genial heart, a calm, affectionate, generous spirit; thereafter they felt the influence of One who had died for their offenses and been raised again for their justification. All their conceptions of His kingdom were infinitely heightened; for-

merly they had thought only of Palestine and Jerusalem; now they thought of the universe as His empire, and for His title, nothing less glorious would serve than "King of kings and Lord of lords."

Has it not sometimes occurred to you how unable rationalist writers are even to comprehend the real relation of Christ to His followers? Beyond doubt, it was something quite different from the relation of pupil to teacher or friend to friend. Pupils are not found willing to die for their departed teachers. They don't commend their own spirits, when they are dying, into their hands. They do not speak of their obligations to their blood, as shed for the remission of their sins. They do not ascribe to them their transition from a state of wrath to a state of acceptance, from darkness to light, from the power of Satan to God. How utterly unlike are the terms in which the men of our day speak of Augustus Comte or John Stuart Mill from those in which the early disciples spoke of Jesus! We cannot reasonably shut our eyes to the predominance in the minds of the early disciples of belief in redemption through Christ, victory over death, resurrection, entrance on an inheritance incorruptible, undefiled, and that fadeth not away. The influence of Christ on them was alike wonderful and unique. Jesus created a new world for them and made them feel that it was theirs. He taught them to set their affection on things above, where He sat at the right hand of God. How could He ever have done this if they had not cherished the strongest belief in His resurrection from the dead?

And this was not true only of the early followers of Christ. You know well, both as a student of history and a thoughtful observer of what you see around you, that in all ages and at the present time the faith and hope of some Christians have been shown to be a real power. Not to multiply particulars, let me advert to but two proofs of this reality. Have you not observed, in the case of invalids and stricken Christians, how their faith bears them up, in cheerfulness and even radiance, despite the most dejecting conditions of life? I believe you are acquainted with the striking history of the Rev. George Bowen, as recorded in the preface to his "Daily Meditations" on Scripture. Mr. Bowen

began to doubt the truth of Christianity at the age of seventeen, and having once made up his mind on the subject, remained unshaken and unwavering in unbelief for eleven years. His reading and course of thought were thoroughly skeptical. He himself tells what first shook his unbelief. It was a singular experience in connection with a young lady to whom he was attached. "There was a young lady dying of consumption in a certain city. She was surrounded by all that could make life attractive, and it seemed, especially to one who was much bound up in her, one of the saddest conceivable things that she should go down to a premature grave. She herself would have gladly lived; there was a hope in life that death could not offer. There was in the same city a lady in whose school she had been a pupil; this lady incidentally heard that her former pupil was dying and not prepared to die. She went to see her; the Lord blessed her ministrations, and she was enabled to show the patient her need of the Saviour and to lead her to Christ. Then was all fear of death removed; the desire to live left her; the hopes that seemed to irradiate this life shifted to the life to come, but elevated and enriched a thousand-fold; a sweet peace possessed her soul, and she died rejoicing in the assured conviction that she was going to be with Christ.

"Whatever grace and beauty seemed to belong to her in health were eclipsed by the spiritual grace and loveliness that invested her last hours as with a halo. There was one who would have given all his interest in life to impart the least alleviation to her pain, to have diminished in the least the fear of death; but he was made most painfully conscious that this was utterly beyond his power to accomplish. Now, the fact that arrested his attention was, that that Jesus of Nazareth who had been so long disregarded and scorned by him should come to the dying one and give her peace and sweet content and joy in the assurance of a blissful immortality. Here was something marvellous and inexplicable. He was bewildered. The effect wrought corresponded with that which only the sublimest truth, in connection with a present Divine power, could accomplish; it was the removal of the sting of death, the bringing of life and immortality to light, the opening of a door into a glorious and holy heaven, and all

this heightened by contrast with his own utter impotency and total penury of help."

He goes on to say that the young lady bequeathed a Bible to him, with a request to him to read it. He read it with a measure of interest, but without a thought that it was a revelation from God. One night he offered something like a prayer that if there was a God that took notice of the desires of men, He would show him His will. Hardly was the word uttered when he thought how foolish was the supposition. By and by, in applying at a public library for a book, he accidentally carried off Paley's "Evidences" instead of the one he asked for. On discovering that he had got Paley, he would not read it; he said he knew all about that sort of thing already. He read, however, but finding himself getting somewhat impressed, he put the book away. Then he took it with him to the country. The more he read, the more he felt. About half way through the volume he offered the prayer, "Help Thou mine unbelief." When he had ended the book, he was perfectly convinced of the truth of the Scriptures. Then he read his Bible humbly and prayerfully. He saw himself to be a sinner; he accepted Christ as his Saviour, publicly professed Him, and afterwards devoted his life to the work of a Christian missionary in India. Now, the great argument in Paley is that the impression made on the early Christians by Christ, and what they suffered for His sake, abundantly proved that they, on the strongest grounds, believed that He was verily the Son of God.

The other aspect of Christian faith to which I call your attention is its power of stimulating self-denying labor. You have good cause to know in how many cases in our day earnest faith is associated with very beautiful examples of the labor of love. Nay, you must know, too, that one of the most constant and earnest lessons which are given to all young converts is, to be helpers in some work of well-doing. All these ragged-schools, reformatories, rescues, refuges, homes, missions, emigration schemes, creches, and what not, are they not the offspring of spiritual Christianity? A force which overcomes the love of ease, the selfishness, the laziness of our nature, and substitutes entire consecration to the welfare of others, which withdraws cultured

ladies and gentlemen from their natural associates and shuts them up with dirty children or degraded women and yet keeps them bright and happy, nay, a thousand times more so than the jeweled butterflies of our parks and ball-rooms, what are you to make of it?

Some time ago I heard of a gentleman who had received the best training of the University of Cambridge and who, after becoming a pervert and serving as a priest in the Church of Rome, had left that Church disgusted with everything bearing the name of religion, visiting an admirable institution for destitute boys, presided over by a young and well-known Christian physician, and confessing that he found more there to shake him out of his skepticism than in all the arguments of learned men. Would only that such men would explore the stream to its source! Can you account for these beautiful, self-denying labors without holding that Christian faith and hope must have their source in the living God, since mere dreams and phantasms never could yield the results which spring on every side from earnest Christian faith?

Who then or what is Christ? The most ingenious and learned men have tried to account for Him on natural principles, but they have tried in vain. The eagerness with which each new theory is rushed after for a time is a clear proof that no satisfactory solution has yet been found. Nobody now believes that the coarse raillery and ridicule of Voltaire disposed of the question, Who was Christ? And yet no man had a more numerous following. When the rationalist school of Germany began its work, it tried first to account for Christ on the theory that the Gospel history was just a misapprehension of causes, ascribing to supernatural what was really effected by natural forces; yet this theory was unable to get decently over the very first statement of the Gospels, the miraculous conception by the Virgin. Then came Strauss and his mythical theory, supplemented by Bauer and his theory of the origin of Christianity and the New Testament, a most wonderful structure for learning, ingenuity, and acuteness; but even Strauss himself did not keep his ground, but slid down to the very gulf of materialism. Not to dwell on the later German theories, those of Schenkel, Keim, and others, we have had

one quite different propounded by Renan; we have seen men of all kinds rushing to examine it, but nothing more, and any man that will propound a new theory to-morrow with equal ability will find the same rush towards him from a restless generation, and the same gradual retiring from him after they have heard his unsatisfying tale.

Can you wonder that the very eagerness with which skeptical writers assail our view of Christ is to us a proof of the strength of our position? They can never afford to let us alone. The Babe of Mary, now as before, verifies the description of Simeon, "a sign that shall be spoken against." Skeptics feel that they cannot put an end to Jesus. David's prophecy confronts them over an interval of nearly thirty centuries, "His name shall endure for ever; His name shall be continued as long as the sun."

Instead of saying that you cannot believe in a miracle, I think you would be nearer the mark if you should say that you cannot but believe in the miracle of miracles. Yet you seem to shrink from avowing your faith. You feel as if by doing so you would be implicated in other things from which you recoil. Your long-established faith in the order of nature troubles you. But is this as it ought to be? Ought not a great truth like that bearing on Christ to rest firmly on its own foundation, and is it not unmanly to shrink from it because it seems to interfere with other truths resting on their foundations? I firmly believe that if once you accepted and avowed Christ, you would find that light would be thrown on the points which occasion you so much perplexity at present. "He that believeth on Me shall not walk in darkness, but shall have the light of life." I believe, for example, that in reference to Christ's own miracles, you would have such a sense of their significance and their importance, and of the unexampled grandeur of the purpose for which they were wrought, that you would not be surprised at the usual order of nature having been interrupted for their sake. You would see in them not mere freaks of power, as in the so-called ecclesiastical miracles, but emblems of redemption, of the removal of the disorder which strangely haunts even nature itself—pictures of that moral deliverance which Christ came to achieve, foreshadows of that blessed consummation when the creation itself shall be delivered from the

bondage of corruption into the glorious liberty of the children of God.

But, in truth, the acknowledgment of Christ as the Son of God and the Saviour of man is the acknowledgment of a miracle compared to which all other miracles sink into the shade. If Christ was born supernaturally of Mary, and if He was raised supernaturally from the dead, there is no cause to stumble at any of His mighty works. If He was not born supernaturally of Mary, and if He did not rise supernaturally from the dead, then how are we to explain the miraculous influence which He exercised? I do not envy the feelings of those who are compelled to resolve Christianity into a system of imposture and pious fraud. It seems to me a similar task to that of a son who should try to convince himself that all the love and goodness of a most gentle mother originated in deceit and madness. Don't you think that, ever and anon, in spite of all his logic,

"The idea of her life shall sweetly creep
Into his study of imagination,
And every lovely organ of her life
Shall come appareled in more precious habit,
More moving delicate and full of life"?

And will not this sweet image, as it comes to Him with an air from Heaven, make Him curse the ingenuity that had declared her a deceiver? And can you, reason as you may, get rid of the image of Jesus Christ, born of the Virgin Mary, Himself the very essence of truth, love, and purity; His blood the sacrifice for sin; His Spirit our quickener, teacher, and guide; His presence the light of the dark valley; His love the very glory of Heaven? There is no reasonable alternative but either to drive off this image whenever a ray of its brightness steals upon you, to crush it down, bury it and stamp upon it, or to throw yourself at His feet and say with Thomas, "My Lord and my God!"

CONDITIONS OF SPIRITUAL SIGHT.

[A Sermon delivered before the Summer School of Christian Phiiosophy, Sunday,
17th July, 1881.]

BY REV. AMORY H. BRADFORD, A.M., OF MONTCLAIR, N. J.

Blessed are the pure in heart: for they shall see God.—MATTHEW v. 8.

DURING these days of rest and study in these fragrant woods, beside these silver waters, we have been considering topics to which the thought of men has been directed for ages. Plato with his disciples in the groves of the academy discussed the same problems. Solomon's wail over the vanity of life is full of hints which show that he was stunned and stupefied when he stood on the shores of that sea whose waters reach out to infinity and eternity. Job, as he led his flocks over the plains of Chaldea, and rested at night beneath heavens radiant with intensely burning stars, pondered the same problems, and was puzzled in the same way in which we are puzzled. The questions of to-day are the questions of the ages. The point of observation changes. Minds differ, but all are brought face to face with everlasting mysteries. Each takes his turn at attempting to fathom them, and each ends either in an abyss of scepticism or in coming to recognize that the only solid rock in this world is the rock of faith. To-day we turn from these profound and puzzling inquiries and ask some questions of more practical importance.

Our subject is, *The Conditions of Spiritual Sight.*

The text is one of the diamond texts of the New Testament. It is the opal of the beatitudes: "Blessed are the poor in spirit;" "Blessed are they that mourn;" "Blessed are the meek;" "Bless-

ed are they that do hunger and thirst after righteousness;" "Blessed are the merciful;" "Blessed are the pure in heart"—that is the crown and climax of all.

Here such a sight of God as is possible on the earth is mentioned among the blessed things, and its condition defined. Let that word "God" represent the whole sphere of spiritual truth. Then we may read the text, "Blessed are the pure in heart: for they shall see, or understand, spiritual things."

Purity of heart is one of the conditions of spiritual sight. Our subject is suggested by this beatitude, although to it our study will not be confined.

What do we mean by spiritual sight? It will be difficult to define with precision our meaning, so we will illustrate. You and I talk about God. We ask, Is there, back of these radiant fields, palpitating skies, changing seasons, and dying multitudes of men, any Being who never changes and who can do all things according to his own will? That question may be answered in two ways. Any man can gather evidences of the existence of God. He sees that all the leaves are curved: strawberry leaves, maple leaves, apple leaves are curved. They grow from round stems, on rounded trunks of trees that all together or in part are a variation of a circle. Nothing ever grows in squares or angles. Life always manifests itself in curves. From the dimple in a baby's cheek to the "big trees" that for three thousand years have faced the tempests of the sierras; from the tiny bell of a lily-of-the-valley to the orbits of planets, comets, constellations, and galaxies, that in solemn silence sail in sidereal seas, the line of beauty is the pathway of the universe. How happens it that everything comes from One mind? Or, take that old saying of the philosophers, *Cogito, ergo sum*,—"I think, therefore I exist,"—and carry it on as philosophers do, and ask, Can an impersonal force produce an intelligent being? In this way you inquire how it is that the eye is adapted to light, the lungs to air; how all faculties are supplied with what they need to exercise their functions. You are brought to the conclusion that design implies a designer. This is simply an intellectual process. It may be pursued by a villain, if he knows enough, as well as by a saint. The best head will gather the best facts. There is a different knowledge of God from that which comes from a pro-

cess of reasoning. In a church of Hartford was an old colored wood-sawyer. He knew no grammar. He had never studied a book. He could not even read. Yet, Dr. Bushnell says, when that old man opened his lips in prayer his language was worthy of Cicero. He believed in God as he believed in his own existence.

The pagan slave Epictetus says, "If a person could be persuaded of this principle as he ought, that we are all originally descended from God, and that He is the Father of men and gods, I conceive he would never think of himself meanly or ignobly." That slave-philosopher, whose thoughts of gold have been beaten out into a thousand modern books, had a clear conception of Deity, morality, and the relation between man and man. How did he get it? By study? No. It was flashed in upon his mind in some strange way. You may call it intuition; but intuition is too broad a word. Let us call it "spiritual sight." By that we mean that there is a knowledge of God, of obligation, an understanding of the claims of religious truth which is not and cannot be conveyed by study, and which comes only to those who are in a certain spiritual condition. This fact is based on the principle that only like can discern like. "When we are like Him, we shall see Him as He is." Only those who are like God can see God. One understands instantly the meaning of sacrifice. Another laughs at it. The second cannot be convinced by argument. The first acts, not because he has passed through an intellectual process, but because of a spontaneous conviction of duty. Every one can talk of God; any one can make an argument to prove his existence. Only those who are like him realize his presence and feel the force of his claims.

What are the conditions of spiritual sight?

I. *Purity of heart.* The secret of religion is locked from those who are not white-hearted. You may fashion syllogisms never so deftly; you may pack into your small heads all the knowledge of all the sciences; you may occupy any position of responsibility or honor; still will you find written over the door of all spiritual attainment this variation of Plato's sentence: "No man can enter here who is not pure in heart." Not the clear-headed, the strong-willed, or the widely read, but the pure, shall see God and understand His truth. What did our Lord mean by this

utterance? The men whom He addressed were careful to have their sacrifices "healthy, sound, and clean, and whole." To them He said, in effect, "You are careful about the animals you offer on the altars: be careful about your hearts."

Ordinarily purity means freedom from filth. Purity is in character what transparency is in the crystal. "It is water flowing unmixed and clear from the mountain spring. Or it is the white of snow. Or it is the clear open heaven through which the sparkling stars appear. Or it is the pure light itself in which they shine. A pure character is that in mind, and feeling, and spirit of life which all these clear untarnished symbols of nature image in this lower and merely sensible sphere to our outward eye." *

"Create within me a clean heart, and renew within me a right spirit." That is a prayer for the realization of this beatitude.

Moral purity is an indispensable condition of spiritual sight. Sensuality dims the senses. It blackens the glass through which the soul should look to eternal realities. A mind filled with images of evil, through whose silent halls foul and bat-like imaginations fly to and fro, whose thought is not of the everlasting whiteness of God but of what will quickest feed the lusts, can no more understand spiritual things than a worm can understand the splendor of Dante's song. This is simple and plain. Every one knows what it is to have a white heart. There have been certain prominent men who have presumed to lead the world of thought, and to speak with authority concerning religious things, who have no more right to be trusted as guides than blind men as pilots. This rules out of the category of religious teachers all such men as Goethe, and that sweetest and saddest of singers, Robert Burns, and that massive mountain of mind and imbecility whom the world knows as Voltaire. Goethe was a *roué*. The warmest friends of Burns gladly draw a veil over the delinquencies of his moral life. Voltaire was one of the vilest as he was one of the ablest of mankind. "Too late I loved thee, O thou Beauty of Ancient Days," cried Augustine after an early life of sensuality had blunted the fineness of his spiritual perceptions. "I would give ten years

* Bushnell's "Sermons for the New Life," p. 264.

of my life if I could forget the pictures which a youth of wrong-doing has hung in memory," said one of our most eminent educators. Impurity grows in a mind that harbors it as rottenness grows in an apple. One such imagination is a seed from which a hundred fouler imaginations spring. There is no place for a high standard of thought or life in such a man. He may become nominally religious. He may develop a theological bias and make systems with ease, but he will never be spiritually sensitive. The impure cannot appreciate the delicacy of purity. There are lines in it which he never sees. If he cannot appreciate purity in man, how can he enter into communion with the infinitely pure God? A man with dirt in his eyes cannot see the splendor of the stars; and it is equally impossible for him, with foulness in his heart, to see the radiant whiteness of God or God's truth.

II. *Sincerity* is a second condition of spiritual sight. Without it there will be spiritual blindness. We are rocked in a sea of mystery, with darkness before us, behind us, around us. What things are real? Back of the blackness is there personality? Does death end all? How shall we walk without sight? These are awfully real questions facing every earnest man. The answers to these questions are disclosed only to the sincere. Other things may be trifled with, but truth must be approached reverently and with honesty. If you and I expect to be led by the Holy Spirit, we must cease to rely on human leadership. What will this man say? What will this council or assembly of ministers say? What will those persons on whom I am dependent for my daily bread say? These questions must be ignored by those who expect the guidance of God's Spirit. Without any recognition of the right of another to interpose his opinion, without regard to the authority of any name, however great, he who expects spiritual guidance must see to it that all foulness is kept from his mind, and that with perfect sincerity he seeks those things which are from above. It is difficult to be perfectly sincere. Other motives are clamorous. But those great ones whose souls have been opened to truth as the ocean surface to light, have always been those who have dared consequences and followed the inner illumination. In our churches, occasionally, much is done to prevent a man

from being led by the Spirit. He is bound to a creedal statement which, in nine cases out of ten, no man, at the commencement of his life, understands.

The day will some time dawn when we shall cease saying, Believe this, and believe that. We shall seek rather to keep men sensitive to the Spirit, as the glass in the camera is sensitive to the light, and then trust the Holy One to lead his own wheresoever he will. Sincerity, freedom from guile, carelessness of human opinions and motives—these must characterize those who would have that deep conviction of the reality of God and the eternal life which holds a man with all the force of reality. I would rather die for an error which I believed to be true, as Giordano Bruno did, than to sit on a throne and profess what other men call truth, with my heart condemning my voice.

III. The third condition of spiritual sight is *Obedience*. This condition is enounced by Christ in the words, "He that doeth my will shall know the doctrine." It may be said this is begging the question. How can I obey One in whose existence I do not believe, or, at least, of which I am not certain? The question is fair, and yet our position is consistent. We assume nothing that all do not grant. Obedience. Obedience to what? To the light which each one has. Every one has some idea of what is right and what wrong. You may have no clear conception of God or the future life. Very well! Stop thinking about those things. In what do you believe? That justice is right? Then seek to be absolutely just. That purity is right? Then strive so to live that your heart shall be like the driven snow. That it is right to be kind and faithful in domestic relations? Then live to that; and if that is all the creed you have, at least be consistent with it. The only way to receive spiritual light is to commence by honoring the light already possessed. Perform the present duty. Emphasize the present belief. Better do wrong trying to do right than to make no attempt. Carlyle says, "Most true is it, as a wise man teaches us, that 'Doubt of any sort cannot be removed but by action.' On which ground, too, let him who gropes painfully in darkness or uncertain light, and prays vehemently that the dawn may ripen into day, lay this other precept well to heart, which to me was of invaluable service: 'Do the duty which lies near-

est thee,' which thou knowest to be a duty! The second duty will already have become clearer." Obedience is the only way many of the profoundest lessons can be learned. "Love your enemies, bless them which curse you," said the Master. Is the lesson learned when the words are committed? No, it is not learned until, following in the footsteps of the Master, you and I have put into practice that lesson. "Love your enemies." What does that mean? You know not so long as there is one person to whom you are not willing to go as Christ comes to you. How am I to learn forgiveness? By forgiving those who have injured me. How am I to learn what the Atonement means? By studying the philosophy of it, and calling it governmental, or moral influence, or expiatory, or what not? No. To do that, and that only, is to know no more of the sublimity of its meaning than the child who dips her hand in the sea can know of the teeming life and measureless spaces of ocean depths. To understand the meaning of Christ's sacrifice, we must sacrifice. I am willing to say that no man knows what the Atonement means until, in the likeness of Christ, he has given himself for those who have nothing to give in return. Go to the one person towards whom you have most reason to feel unkindly—a person who has lied about you, insulted you, betrayed you, and violated every claim upon your care and regard. To that person go, speak to him kindly, treat him as if he were your own brother, and keep on doing that until he is conquered or you are dead, and then you will know something of what the Atonement means. The Christian doctrine of sacrifice can be understood only by obedience to its demands. Obedience is essential to an understanding of spiritual truth. It is also essential to the reception of it.

Not far from the Rhine, in majestic splendor, stands the grandest of modern temples. Massive walls, graceful pillars, forests of arches which seem to have been caught from some primeval forest, hideous gargoyles, flying buttresses, windows red as blood and golden as light, angel choir, solemn nave, and lofty spires that seem to reach the sky,—a poem in stone,—beside that grand old river rises the cathedral of Cologne. But it is not so grand as the work of pastor Fleidner in the humble little town of Kaiserwerth, almost within its shadows, where is one of those rare institutions which give faith in God and hope for

man. A humble clergyman and wife, when their people could no longer support them, went to England for help. There they met Elizabeth Fry and went with her into the English prisons. Their hearts were touched with a coal from the altar which had fired her heart. They returned to Germany. Now mark the growth. They were young. They knew little of life and nothing of philosophy. They commenced to do for the first who needed help. Two outcast women, turned from prison, could find no home. They were taken by pastor Fleidner to his house. Obedience brought new revelations of the meaning of service. The sphere of activity grew until now their training-school for nurses, their mission-house, their orphan and insane asylums have become stars whose radiance meets around the world. Obedience is the condition of knowledge. Kindness, justice, purity, charity, are right always and everywhere. For one, I have no faith in the spiritual illumination of any man, though his head contain the brains of Bacon, or his place in the church be that of preacher or pope, who has not learned that he must be kind, pure, just, and charitable. If a man is not obedient to the knowledge which he has, he can never have trustworthy revelations of higher knowledge. If a bad man tells you he believes in God, you wish he would act it more and talk it less. But he acts all the knowledge he has.

IV. *Self-Surrender.*—Spiritual sight concerns itself with things outside of us, most of them to the physical sight invisible. You cannot see the stars by looking at your hands. You cannot appreciate the beautiful in conduct or character by wondering whether the world is giving you your dues or not. No one is less to be trusted in spiritual things than the egotist. He knows all there is to know already. He is receptive of nothing from heaven above or earth beneath. Centred in himself, how can he hold the windows of his soul open? The selfish man, always more anxious to receive all that belongs to him, and to gain all that he can, than to be generous, never having a good word for others for fear that some one else will get more attention than himself, always looking out for slights, and fancying them where they are never intended—such a man may have good qualities, but he can never receive special spiritual illumination. The generous soul is the open soul. Hence, while great leaders in philosophy, as Bacon, in literature, as Dr. Johnson,

in the movement of nations, as Napoleon, have been egotists, the great spiritual teachers have been those who have learned the lesson of self-forgetfulness. "I have learned in whatsoever state I am, therewith to be content," cried the apostle Paul. Sakya Muni, the Buddha, who has made the religion for a third of the human race, left the splendor of a royal court, spent his days where he could feel the beating and the breaking of human hearts, gave himself to find a way of escape from the "ever-changing wheel of nature and of pain." The Orient, which has followed Buddha, has been led in a faith of purest morals by one who, though he never heard of Jesus, walked the same pathway of self-denying service for his fellow-men. And our great Master! What words describe Him, the world's supreme moral Teacher and spiritual Instructor, like these: "He made himself of no reputation; and, being found in fashion as a man, He humbled Himself and became obedient unto death, even the death of the cross"? All who would receive light from God must follow in His footsteps. Man is but an atom in the universe, not its centre. But the selfish man will make dogmatic statements about God and eternity, as if the Almighty were in the habit of consulting him about the management of the universe. He is not to be trusted. Close by his side, hardly daring to look up, is one who makes no pretensions, who realizes that an individual is to the universe less than a drop of water to the sea, but to whose quiet hours have come visions of truth, duty, and the possibility of goodness of which the former never dreamed. To such God reveals himself.

These four words epitomize the sermon to which you have thus far listened: *Purity, Sincerity, Obedience, Self-Surrender.*

These are conditions of spiritual sight. God may reveal truth to a man who knows nothing of books, as he did to Job; to one who is no philosopher, as the apostle John; but he never reveals spiritual things to those who are impure, insincere, careless of duty, or selfish. I do not underrate knowledge and culture. A wise man who is pure in heart is better than if he were ignorant. But I want to record my belief that many who have no time for study, whose lives are lives of drudgery and pain, of whom the world never hears, have visions of God and the mystery of his service of which the masses are ignorant.

Purity, sincerity, obedience, self-surrender,—these are the marble steps that lead to the spiritual temple.

Three lessons naturally follow.

(1) If what has been said is true, then the best teacher of spiritual truth, other things being equal, is the purest and truest man. Any man who seldom opens a book, *if he is purer in heart*, is a better guide for spiritual things than Jonathan Edwards with all his theology, Professor Huxley with all his scientific acumen, Neander with all his historic research, or Herbert Spencer with all the powers of his philosophic mind. Not learning, but goodness, is the world's best teacher. This is not the world's way of looking at it. Innocence is almost synonymous with weakness. Queen Caroline with a diamond wrote on the window of her palace, "Lord, make others great, keep me innocent." The world's best teacher of its profoundest mysteries is the world's purest man. It is no time to discuss the question of the relation of science and religion. It is enough to say that when Tyndall, Huxley, Mivart, speak of physical science, it is time for you and me to be still. They are kings in their own realms. But I do want to emphasize that because some one is learned in other things he is not therefore to be trusted as a religious guide. The scientist, because he is a scientist, has no right to a feather's weight of influence in religion. The Christian, because he is a Christian, knows no more about the origin of the world, or the laws that govern it, than if he were not a Christian. That beatitude needs angelic emphasis: "Blessed are the pure in heart: for they shall see God." Newton may instruct in science, Niebuhr in history, Hamilton in philosophy, Beethoven in music, Angelo in art, Calvin in theology, but it is the pure in heart that see God and know spiritual truth. Tennyson's lines on the dwellers in the spirit-realm may be applied to spiritual truths:

" How pure at heart and sound in head,
With what divine affections bold,
Should be the man whose thought would hold
An hour's communion with the dead.

" **In** vain shalt thou, or any, call
The spirits from their golden day,
Except like them thou too canst say,
My spirit is at peace with all.

"They haunt the silence of the breast,
 Imaginations calm and fair,
 The memory like a cloudless air,
 The conscience as a sea at rest:

"But when the heart is full of din,
 And doubt beside the portal waits,
 They can but listen at the gates,
 And hear the household jar within."

(2) There came to my study a few years ago a man without work and not able to work, with a large family of his own, and a blind father dependent on him. I asked him his name. He gave it. I asked him how to spell it. "Well," said he, "to be honest with you, I have never been to school a day in my life. I have always had to work early and late, and I don't know how to spell." It was no fault of his. Into such hearts come longings for God as real as into yours or mine. They bury their dead with tears as sincere as ours. The tremendous reality of the future they face with inquiry as eager as ours. It is not of the rich, the wise, the strong, the successful; not of those who can say with Whittier,

"I listen to the Sybil's chant,
 The voice of priest and hierophant;
 I know what Indian Kreesha saith,
 And what of life and what of death
 The demon taught to Socrates,
 And what, beneath his garden trees
 Slow-pacing with a dream-like tread,
 The solemn-thoughted Plato said; . . ."

nay, it is not written of any of these, but of the pure in heart, they shall see God. Therefore the poorest, the weakest, the humblest man that walks the earth may enter into communion with the Deity.

(3) Professor Tyndall, after almost superhuman exertions, climbed the Matterhorn, and, standing upon the summit, where few have ever stood or will stand, his mind ran back to the beginning of creation, back to the star-dust out of which he imagines all things to have been evolved, and he asks, "Did that formless fog contain, potentially, the sadness with which I regard the Matterhorn? Does the thought which now runs back

to it simply return to its primeval home? Such are the questions, without replies, which run through consciousness during a ten minutes' halt upon the weathered spire of the Matterhorn." Questions equally mysterious meet us everywhere. We live, as birds and beasts and insects live,—to die. We put our thoughts into buildings, books, machines; and the buildings stand, the books are read, the machines run on, when we are formless dust. We reach eternity with aspiration, and grasp only the facts of an hour. Oh, my friends, let us be honest with ourselves! Let us covet the best gifts. Let us not shut our eyes to facts even though we understand them not. We walk between graves. Stars shine on when men are gone. We love, and love's chains are broken as rudely as any others. We are made for happiness; and yet Augustine's words are true, "God hath had one Son without sin, but never one without sorrow." Every heart sometimes drops blood; and when we ask, Does no one see? Can no one help? the waters ripple, the stars shine, the trees whisper, the great world "spins down the grooves of change," and no answer comes from one of them. Who can know anything of what every one longs to know? To those only who are pure, sincere, obedient to the light they have, unselfish, comes the divine voice of the Divine Teacher. Then how may we become pure, sincere, obedient, unselfish? Almost in a word can we answer: Become a disciple of the only pure One who ever walked this earth. Would you become brave? Read Plutarch, and the dauntless heroism of those warriors of the elder ages will fire your soul with their fervor. Would you be a philanthropist? Study the splendid self-sacrifice of Howard and Pastor Harms; fall in love with Florence Nightingale, treading the ghastly wards at Scutari, while bleeding soldiers kiss her shadow as if an angel had passed, and their example will become your inspiration. Would you be pure in heart, sincere as light, obedient and self-sacrificing? Then study the words, imitate the example, fall in love with the person, and spend all the time you possibly can in the presence, of Him who is the Brightness of the Father's glory; and as roses and violets absorb their colors from the sun, so you will become white with the radiance of Christ's purity, and in his light the mysteries of earth shall melt into the changeless realities of the Better Land.

VIEWS AND REVIEWS.

CHAUNCEY M. DEPEW'S REPLY TO JULIAN HAWTHORNE.—

Chauncey M. Depew, Esq., is best known for the brilliant wit of his after-dinner talks, but at a late meeting of the Nineteenth Century Club, of this city, made up largely of skeptics and free-thinkers, Mr. Julian Hawthorne read a well-written paper on Society as seen from the point of view of the "advanced thinkers." Mr. Depew was called upon to answer Mr. Hawthorne's argument, and in doing so showed that he is much more than a postprandial wit. He proved himself, in fitting words, to have high appreciation of the Divine character and beneficent power of Christianity as the real reformer of the world. We take pleasure in quoting from his telling speech the following paragraphs:

"Mr. Hawthorne's case, stripped of its brilliant illustrations and attractive presentation, is simply this: Man is depraved by nature. He is prone to crime against others and vice against himself. The Church and society keep him in order by a system of punishments and rewards. To escape the one and receive the other he suppresses his natural inclinations, and lives and dies a hypocrite. The Church, therefore, having totally failed to produce men and women who are good from right motives, science and free thought are developing a nobler manhood and womanhood from within, and their creations, actuated by neither sordid fear nor hope, will regenerate mankind.

"Mr. Hawthorne reaches conclusions which all history and experience refute. The one society which presented the ideal of science and free thought was the Athenian at its best. But while the highest intellectual activity, speculation, and research existed among the few, woman, until she unsexed herself like Aspasia, had no part or recognition, and the masses were neglected brutes or slaves. In the decay of the Roman Empire the old heathen faiths had broken down, Christianity was not yet understood, and there was emancipation from both faith and superstition, and the result was that for ages the world was peopled with wild beasts,

and the only existence of right was the sufferance it received from might. Liberty, learning, and proper living thrived and spread only where the Church best and most vigorously believed and disseminated the teachings of the New Testament. Look at England of one hundred and fifty years ago. Death was the punishment for nearly every offense. To attend public executions was one of the recreations of the fashionable. To torture men and women in the stocks was popular amusement. The prisons were hells of frightful crimes and hopeless sufferings. For a gentleman to beat his wife was regarded as a very proper thing to do.

“Now the prisons are reformed, and reformation the object of confinement. The wounded, the sick, the helpless, the insane, the aged and the orphans are nursed, tenderly cared for, cured and befriended in numberless hospitals, homes and asylums. Every one of these grand charities has sprung directly from the Church as it is, both here and in England. The disciples of science and free thought, in the absorbing effort to find what they term their liberty, have never had time or thought for the relief or elevation of their fellow-men. A grand work is done daily by self-sacrificing and modest people (who seek no other reward than their consciences) among the poor in the tenement houses, the missions and industrial schools. Women of the most delicate nurture and luxurious surroundings brave everything in their labors. They are invariably the disciples of the churches, and no free-thinkers are to be found among them.

“Last summer in London, I attended Sunday morning service at Westminster Abbey. The grandeur of the temple, the glory of its associations, the splendid liturgy and ceremonial of the Episcopal Church formed fit and lofty accompaniments for a sermon from Canon Farrar, which in thought and diction could worthily stand beside the best classics in our language. The next Sunday I sat upon the wooden benches in the plain meeting-house of Mr. Spurgeon, and listened to his homely but most powerful eloquence. No more striking contrast within the Christian community was possible. And yet I found that in like measure, but each in its own way, the old cathedral and the Baptist assembly were centres from which radiated to every part of

London every form of Christian education and charity. London has many scientific and sociological associations of world-wide fame, but the poor, the needy, the helpless, and the lost of the great city know them not.

"A better society never has and never will exist than that in New England, for its first one hundred and fifty years, and its whole life was dominated by the family Bible. You are all familiar with the care and growth of children. Fear and rewards have always been the elements of their education. From the first dawnings of intelligence they are taught that they will be punished if they do wrong, and benefited if they do right, both here and hereafter. If this system was abandoned, and an effort made to find some higher nature, which would assert itself in a beautiful and reverent life, the boy would break the windows, smash the looking-glasses, maul his younger brothers and sisters, cut up your best picture, and finally cut your throat. The old-fashioned way of arousing fears and inspiring hopes does not make these children hypocrites. A conscience is gradually aroused within them. By its teachings they act, because it is more gratifying in every sense to rightly live, and these boys and girls, instead of becoming broken or mean-spirited, are full of sensitive honor and pure aspirations.

"I confess I do not understand these evangelists of free thought. They use a language of strange terms and beautiful generalities which convey no meaning to me. It is probably because my mind and education are both deficient. Here and elsewhere I have listened with the most earnest attention, but when they have tumbled down my church and buried my Bible and destroyed all the foundations of faith, they offer in return only phrases, collocations of words and terminologies as mixed as chaos and as vague as space."—*The Examiner.*

VERDICT AGAINST SPIRITUALISM.—Mr. Henry Seybert, of Philadelphia, left by his will a sum of money to the University of Pennsylvania to establish a chair of Philosophy, and made it a condition that a Commission should be organized for the purpose of making an exhaustive, scientific investigation of the phenomena of Modern Spiritualism, in which the testator was a believer.

This commission, appointed in 1884, consisted originally of Dr. William Pepper, provost of the University of Pennsylvania, Professors Joseph Leidy, George A. Koenig, Robert Ellis Thompson, and George S. Fullerton, all of the University, and the eminent Shakespearian, Dr. Horace Edward Furness. To these were subsequently added Dr. S. Weir Mitchell, Dr. C. W. Knerr, Dr. J. W. White, and Mr. Coleman Sellers.

The Preliminary Report of this learned body was issued by Lippincott & Co., of Philadelphia.

We find in the number of *Science* of date July 1, 1887, quite an extended notice of this report, giving the conclusions reached by the commission. The report itself we have not seen, but we give below an abstract of the statements made by the reviewer in *Science*.

The commission, in execution of their trust, proceeded, we are informed, to invite both professional and unprofessional mediums to meet with them—one of the first looked for being “a professional independent slate-writing medium,” and a Mrs. Patterson undertook to furnish the spirits for this occasions; but after waiting an hour and a half the slate was returned without the trace of a pencil on it. The celebrated Dr. Henry Slade was the next performer, who, we are told, has two methods: for the long, clearly written messages, he substitutes at a favorable moment a prepared slate for the one given him; for the short, hardly legible messages, he in one way or another writes on the slate while hidden from view of the two or three observers (he allows no more) seated with him. Every particular of the process has at one time or another been seen by the committee. In fact, on the day when Dr. Slade received three hundred dollars in payment for his services, he was so excited that he could hardly sign the receipt; and the cause of this excitement was simply that, shortly before, Dr. Furness had kicked over a slate placed at the foot of the table, and thus exposed the prepared writing upon it. In fact, their verdict with regard to the doings of this their most famous medium is, “that the character of those which passed under our observation was fraudulent throughout. There was really no need of any elaborate method of investigation; close observation was all that was required.”

The commission attempted to procure some "spirit photographs," but three hundred dollars was demanded for this performance, and the condition required that no member of the commission was to be present in the room at the critical moment. Very properly these terms were declined.

The commission ascertained distinctly that the "rappings" were not made by "spirits," but were purely "physiological" in their origin. This was made manifest by the fact that the mediums were confessedly cognizant in every case of any rappings that occurred, and could always detect any spurious rappings, however perfect the imitation.

The brother of the would-be photographer (Keeler is the family name) is also a medium. His specialty is to "materialize" a right hand when apparently holding his neighbor's wrist with both his hands, and have this hand perform the usual simple tricks with the musical instruments, etc. The trick was afterwards repeated by one of the commission, and consists in really holding the wrist with one hand only, but producing the feeling in the owner of the wrist of its being clasped by both. The right hand is then free to do all the hocus-pocus.

Dr. Furness next experimented with sealed letters. A question carefully sealed was sent to the medium, and the answer to the unopened letter returned. Many mediums were written to. They gave contradictory answers when asked the same question, and in every case the letter had been opened, and mucilage and skill been used to cover up the deception.

Dr. Furness's description of the materializing seances can only be appreciated when read in full. Everywhere he found fraud where he looked for honesty. The fraud is so gross, so easily made to leave its hiding-place and snatch the bait offered by an ingenious question, that it becomes ridiculous.

Professor Fullerton's account of the famous Zoellner investigations with Dr. Slade is a highly valuable contribution. He has personally examined Zoellner's confreres in the investigation, and finds that Zoellner was of unsound mind at the time; that Fechner was partially blind, and relied on Zoellner; that Scheibner was too myopic to see anything, and was not quite satisfied with the seances; that Weber was old, and did not recognize the dis-

abilities of his associates. On the evidence of these men—deservedly honored in their own specialities, as they are—without knowledge of the arts of a conjuror, has rested one of the most famous proofs of the truth of Spiritualism and its connection with the fourth dimension of space.

A device by which Dr. Knerr detected a fraud is too ingenious to be left unnoticed. He arranged a mirror about his person so that it reflected the hands of the medium at work on a slate under the table. He plainly saw the hand open the slate, read the question, and noiselessly write the answer, which the fair medium had the impudence to present to him the next minute as the work of departed spirits.

The mysteries and miracles that shape people's beliefs upon that which is most sacred to the human heart, thus resolve themselves, under the scrutiny of careful scientific observers, into a mass of vulgar frauds and low deceptions. The mystic theories and spiritual messages are "disgusting cant;" the medium, a criminal.

The verdict of the commission is everywhere the same: "No new facts and many old frauds."

The slate-writing trick was still further investigated by calling in a professional juggler, who was as successful as the mediums—indeed, more so, for the commission was unable to detect the methods by which his feats were performed, which, however, the magician admitted to be nothing but the tricks of his art.

Speaking of this last performance, the report of the commission says:

"In broad daylight a slate perfectly clean on both sides was, with a small fragment of slate pencil, held under a leaf of a small ordinary table around which we were seated; the fingers of the juggler's right hand pressed the slate tight against the underside of the leaf, while the thumb completes the pressure, and remained in full view while clasping the leaf of the table. Our eyes never for a fraction of a second lost sight of that thumb; it never moved; and yet in a few minutes the slate was produced, covered on both sides with writing. . . . We were utterly baffled. For one of our number the juggler subsequently repeated the trick and revealed its every detail."

The present report is only a preliminary one, and the commission have not yet finished their labors, but Dr. Furness (who was inclined originally to believe in the genuineness of the manifestations) makes the remark that he thinks the day is not distant "when the more elevated class of Spiritualists will cast loose from all these physical manifestations, which, even if they be proved genuine, are but little removed from materialism; and eventually materializing seances, held on recurrent days and at fixed hours, will become unknown."

This is a bad showing for Spiritualism—certainly (if it be a fraud) one of the most extraordinary and successful examples of a gigantic humbug that the world ever witnessed. Millions of people have been deceived by it; hundreds of the most acute and intelligent of observers have failed to detect its fallacies; and the most pretentious of the scientific men of Germany have given it their countenance.—*Central Presbyterian.*

MONTHLY MEETINGS.

By the Secretary.

THE regular Monthly Meeting of the Institute was held in its rooms, No. 4 Winthrop Place, Thursday, February 2, 1888, at 8.23 P.M.; the President being in the chair. The devotional exercises were conducted by Rev. Jesse F. Forbes, of New York City. The minutes of the last meeting were read and approved. The following names of new members were announced:

Prof. Geo. S. Fullerton, University of Pa., Philadelphia.

Miss Alice Carney, Mobile, Ala.

Hon. David C. Bell, Minneapolis, Minn.

Ralph Emerson, Esq., Rockford, Ill.

Mrs. Mary B. Moody, M.D., New Haven, Connecticut.

Samuel Fallows, D.D., Bishop, Reformed Episcopal Church, Chicago, Ill.

Pres. Amos B. Jones, D.D., LL.D., Huntsville, Ala.

The regular paper of the evening was by Prof. Henry S. Williams, of Cornell University, whose subject was "The Scientific Evidence of the Supernatural."

Remarks were made by Vice-Chancellor MacCracken, of the

University of New York; S. H. Wilder, Prof. J. J. Stevenson, and the President.

On motion of Dr. MacCracken, seconded by Mr. P. W. Lyon, it was

Resolved, That the thanks of the Institute are due, and are hereby tendered to the lecturer, for his able and interesting address, and that a copy be requested for publication in **CHRISTIAN THOUGHT**.

On motion adjourned.

At the meeting of the Institute held March 2, in the absence of the President, the chair was occupied by Vice-Chancellor Henry M. MacCracken, of the University of the City of New York. Devotional exercises were led by Rev. Dr. Loomis, of Poughkeepsie. The minutes of the last meeting were read and approved. The following names of new members were announced:

Rev. Jesse F. Forbes, A.M., New York.

Rev. F. C. Monfort, Cincinnati, Ohio.

John C. Sims, Jr., Philadelphia, Pa.

Henry Van Dyke, D.D., New York.

The lecturer of the evening, Prof. Richmond M. Smith, of Columbia College, being absent on account of illness, his paper was read by the Secretary. The subject was "Social Problems; How they Arise, What they are, and How Modern Political Economy deals with them."

After remarks by Dr. MacCracken, it was

Resolved, That the thanks of the Institute are due, and are hereby tendered, to Prof. Richmond M. Smith, for his able and interesting paper, and that a copy be requested for publication in **CHRISTIAN THOUGHT**.

On motion adjourned.

MEMBERS OF THE INSTITUTE will please send changes of address promptly to Mr. Charles M. Davis, Secretary, 4 Winthrop Place, New York, and *not* to the President, nor to the publisher. Notice of the decease of any member is respectfully solicited by the Secretary.

CHRISTIAN THOUGHT.

SOME ASPECTS OF THEISTIC LOGIC.*

[A Lecture delivered before the American Institute of Christian Philosophy, August 24, 1887.]

BY PROF. ALEXANDER T. ORMOND, PH.D.,

Princeton University.

THE vital point of contact between philosophy and religion is in theism. Religion—and here supernatural religion is meant—assumes theism just as science assumes cosmism. It is left to philosophy to analyze both assumptions and, if possible, to discover their rational justification. This being conceded, it follows that a theistic philosophy supplies the rational basis which religion assumes and requires. A philosophy that fails to discover a rational justification for theism fails to meet the religious demand, and is worthless so far as religion is concerned. A philosophy that reaches an atheistical or agnostic conclusion, if that conclusion be absolute, disputes the assumption on which religion rests, and is, therefore, its enemy. These propositions are almost axiomatic; for, although there are phases of non-theistic philosophy which are not wholly inconsistent with religious belief, these derive their religious value, not from their negative features, but from the fragments of theism which they have retained. They are as broken lights, which reveal partial and distorted glimpses of the great object of religious adoration.

Assuming, then, that theistic philosophy is a desideratum of religion, the question arises, what is the true logic of theism? or,

* This discussion is necessarily incomplete. The moral argument for God's existence has not been considered. The moral evidence will, however, be affected by the same considerations that affect the evidence in general.

in other words, in what form will the evidence for theism be most convincing? The theistic belief has never, since Socrates, been deficient in evidence, and it has, on the whole, proved itself able to meet all skeptical assaults. If theism has been defective in anything, it has been rather in logical command of its materials than in the materials themselves. Every demonstration, in order to prove anything, must have for its major premise some axiomatic principle or well-grounded truth, which will serve both to unify the evidence and support the superstructure that is reared upon it.

The traditional practice of theistic philosophers was to rest the case for theism on a single line of proof; either the ontological with Descartes, the cosmological with Locke, or the physico-theological (teleological) with Socrates and the eighteenth century divines. Since Kant, however, who showed the insufficiency of each and any of the arguments taken separately, the method has broadened, a consensus of evidence is sought for, and the several historical proofs are gathered together as converging lines of one demonstration. This, it must be conceded, is a great advance on the traditional method, but the result has not proved wholly satisfactory. As a rule, the various elements of proof have been simply aggregated and a species of mosaic has been formed, which, however much it may edify the believing, fails to convince the skeptical. The fault does not, I think, rest with the evidence, but with the mode of conceiving and presenting it. The proof of God's existence, in order to be really convincing, must form a logical organism with an intelligible basis and a close inter-relation of the several elements of which it is constituted.

The demand at present seems to be for a more philosophical treatment of the entire question of God's existence and His relation to the world. The case for theism can no longer be rested on a single argument or an aggregate of proofs, however complete these may be in themselves. Some of the profounder thinkers have realized this and are seeking a more adequate basis for the theistic faith. That causality is a very important principle in constructive theism is conceded. But the case cannot be rested on causality alone. It is evident that analogy plays an

important part, and some explorers have returned from their quest with the suspicion that the clue to the whole mystery is to be found in the nature of man himself. It is evident that here are the materials for an important step in the logical reconstruction of the theistic evidence.

Opinions may differ as to what constitutes a philosophical treatment of the question. It seems to me, however, that beneath any satisfactory theistic proof, as its basis, must rest an adequate conception of man and his relation to the world. If we conceive all being as falling under the two categories, ego and non-ego, it will be conceded by all theories of man's origin that the ego is in some sense a product or manifestation of the non-ego.* Most ontological theories attribute real existence to the non-ego. But the assertion of the reality of the ego is not so unanimous. The sensational theory of knowledge is characterized by its failure to recognize the real individuality of man's psychical nature. It represents the ego as a series of changing states of consciousness without any ascertainable principle of continuity or real core of individuality. The conception which I would substitute for this, as being an essential element in the theistic foundation, is a realistic one. The ego is a psychical individual, a unitary subject of real activities, that is to say, the ego as well as the non-ego possesses substantial reality. I would regard the relation between ego and non-ego as vital rather than mechanical. Thus conceived, the ego becomes a genuine reproduction of the non-ego;† or to substitute religious phraseology, man is the child of God, not a mere simulacrum of himself, lacking reality, or a machine constructed out of alien materials. If the ego is a real product of the non-ego in such a sense as to involve community of nature between them, two conclusions naturally follow which would be difficult to deduce from less realistic data: (1) the ego will be capable of knowing the non-ego. The object of cognition will not be mere subjective impressions and relations among states of conscious-

* Even egoists like Fichte distinguish between the individual egos and a universal ego on which they depend.

† The phrase "genuine reproduction of the non-ego" is meant to assert no more than a community of nature between the ego and non-ego.

ness, but real facts and relations of the objective world. In other words, the knowability of the real follows from the reality of the knower and its relation to the known. (2) A rational justification of our necessary judgments and beliefs will be possible. Take, for example, the notions of identity, substance, and causality. These stand for necessary beliefs about the non-ego. We cannot avoid the conviction that the non-ego possesses substantial reality; that it preserves its identity through all the changes of phenomena; that the principle of causality is valid for it as for our inner experience. But it has not occurred to every philosopher who recognizes the validity of these necessary beliefs to connect them with the inner experience of the ego. It is a fact, nevertheless, that we find within direct empirical testimony to their validity. When broadly interpreted, we may say that in our inner experience the ego is given as something which persists through the changes of consciousness. It is given as a real unitary subject of experience. It is also given as standing in causal relations to the series of states and relations which constitute the phenomenal aspect of the inner world. We obtain, in fact, from inner experience, a conception of causality which embraces two different kinds of relations: (1) a relation between antecedent and consequent states of consciousness, as when a feeling of pressure is followed by a feeling of pain; (2) a relation between the psychical subject and consciousness as a whole. The first relation corresponds to the ordinary scientific, the second to the deeper metaphysical conception of causation. We do not maintain that the conceptions of causality, substance, and identity are developed independently of outer experience, but that their intuitive basis is found within. They are obtained at first in singular and concrete experiences, and these are generalized into conceptions by processes of reflection.

The vital point at which we have now arrived is the assertion of these conceptions which we know to be valid for the ego as valid also for the non-ego. It is customary to rest the case for the objective validity of these notions on the necessary character of the judgments and beliefs which affirm them. We find it utterly impossible to conceive them as not being true of the non-ego, and we take this inconceivability of the opposite as incon-

testable evidence of their trustworthiness. Now, I am as firm a believer in the validity of our necessary beliefs as any one. But I believe also that empirical confirmation of their authority is possible. Here the realistic assumption on which we have thus far proceeded begins to yield fruit. If there is a community of nature between ego and non-ego, it follows that in some points they will be substantially identical. Suppose that there are certain relations which sweep through ego and non-ego, embracing the universe in their grasp. Suppose that these constitute a ground of identity between ego and non-ego, then it would follow that the recognition of the universality of the relations would be the ground of the necessity that attaches to the judgments which assert them. This is but another way of asserting that self-evidence is the true criterion of necessary truth. And this self-evidence may be construed from the stand-point here advocated as the ego's recognition of the identity of certain features of its constitution with that of the non-ego.

Necessity is thus our chief warrant for extending the forms of our inner experience to the non-ego. But the actual process is one of analogy. We conceive the non-ego to be similar to the ego in the possession of certain forms or relations. Without the intervention of analogy, such a generalization would be impossible. But it is to be borne in mind that the strength of the conclusion is more than analogical. It has the sanction of necessity, which I believe with Herbert Spencer to be the highest test of truth. But in addition to the voice of necessity, this use of analogy derives a degree of empirical confirmation from without. In our cognitions of the outer world, assuming them to be valid, we apprehend an objective series of phenomena and relations similar to the series of which we are conscious. And the natural presumption is that this external series bears a relation to a cosmic centre analogous to that borne by the conscious series to a psychical centre.

The outer world thus presents to us a phenomenal series which we cannot accept as ultimate, but for which we feel obliged to seek a rational explanation. It is in answer to the demand for an explanation of the phenomenal world, that we have recourse to analogy, and under the spur and sanction of necessity

apply the forms and types of our inner experience to the outer world. The result is our conception of the non-ego as a cosmos, embracing not simply a series of observable phenomena, but rather a cosmic subject uttering itself in the series of the visible and phenomenal world.

Regarding this cosmic subject, the mode of attaining to which has been explained above, two propositions may be asserted: (1) Assuming the reality of the ego and the authority of inner experience, such a conception of the non-ego is necessary. The unity of the ego depends on the presence in consciousness of a unitary subject which conditions the conscious series as a whole, and hence we conclude under the spur of necessity that the unity of the non-ego requires the presence in the world of a cosmic being which conditions the world-series as a whole. The inner nerve of such a process is causality, since the entire procedure arises in obedience to the demand for an adequate explanation of the world, but it is causality under the guidance of analogy, and confirmed by the necessary judgments and beliefs. (2) This cosmic subject is a fundamental philosophical necessity. No great system of thought denies it except Positivism, which seeks to limit its view to phenomena and to the conception of the world as a series of changes involving nothing more ultimate than what can be grasped by the senses. But the irrationality of such a view is evident, and candid Positivists themselves admit the superiority of such a system as Herbert Spencer's, which postulates the necessity of a Power beneath the phenomenal world.

We have, then, the general presumption of Philosophy, whether theistic or not, in favor of the existence of a cosmic being analogous to the being we are conscious of in our inner experience, and bearing an analogous relation to the world's phenomena. The important logical fact which I would insist on here, is that theism may assume this postulate of general philosophy. For this much it may legitimately throw the burden of proof on the negative. The general conclusion of cosmology will thus serve as a foundation on which the theistic superstructure may be erected.

The value of the result here arrived at will appear in the logical recast of evidence on which we now enter. The three historic

proofs of God's existence are: the ontological, founded on the notion of God in the mind; the cosmological, founded on the necessity of an adequate cause of contingent existence; and lastly, the physico-theological, founded on the evidence of intelligent design in the world. It is not the purpose here to re-argue these proofs, but simply to assign to each its place in a logical scheme of evidence.

The ontological proof stands first in the logical order, if not first in importance. All belief or conviction that God exists must, of course, be conditioned by the presence of the idea of God in the mind. To presuppose a consciousness from which the Divine idea is wholly absent is to presuppose a being incapable of religious ideas or beliefs. Regarding this idea of God, two considerations are important: (1) its relation to the idea of the cosmic subject already unfolded; (2) its origin and the necessary implications of its existence. The first consideration is a vital one from the logical stand-point, since it enables us to establish the *nexus* between cosmology and theology. For we are not obliged, in order to prove the existence of God, to assume the existence of a cosmic subject *plus* a being corresponding to our idea of God; but we may regard our idea of God as the completion of the idea of the cosmic subject. This cosmic subject is already conceived as a Power underlying phenomena; as bearing essential creative relations to these, and as being a self-identical subject containing in it the ground of the unity of the world. What the theistic idea requires is the completion of this subject by the ascription to it of a group of attributes characterizing it not merely as a cosmic subject and ground of existence, but as a personal agent who acts with consciousness and foresight. Singling out of this group of theistic attributes the two which will be regarded as most essential, we may say that the nexus between theism and cosmism and the special feature which marks the advance of theism beyond cosmism is the ascription to the cosmic subject of the attributes of intelligence and consciousness. For where intelligence and consciousness exist, personality and purpose follow by logical necessity. Clothe the cosmic subject with intelligence and consciousness, and the God of theism stands before us. (2) Of equal importance in its bearing on the evidence

is the question of the origin of the Divine idea and its necessary implications. Those philosophers and divines who maintain that the idea of God has been imported into the mind from without have, I think, completely failed to prove their case. They have Revelation against them, which in its initial utterance assumes an answering conception to the name of God in the mind of man. They have also the analogies of experience against them. According to these, the fundamental conceptions of being are derived primarily from inner experience and extended by analogy to the outer world. The truer and profounder conception, and the one borne out by the history of the race, seems to be that the Divine idea springs naturally and spontaneously out of the psychical constitution of man. Or, to put the case in different language, it seems inevitable that man, constituted as he is, and in living relations with the non-ego, should, along with his other experience, gradually develop the idea of a Divine Being. This idea would arise at first spontaneously, and man would, perhaps, under the stimulus of natural and inevitable growth, without reflection or supernatural revelation, attain to theological conceptions analogous to those of the Homeric Greeks. But the completion of the idea, its purification and elevation, would necessitate reflection, mental and moral development, and all the natural and supernatural agencies which affect man either from within or from without. Assuming, then, that man's constitution in vital relations with the non-ego will inevitably develop the Divine idea, the ontological proof which argues from this idea to the existence of God will have far more force than Kant would allow to it. For although in general we may admit that existence cannot be deduced from the mere notion of existence, yet the force of the ontological proof does not lie in the mere existence of the idea, but in the conditions and nature of its origin. It has in its favor the fact that it arises spontaneously and inevitably. It thus exists by a species of subjective necessity. Its connection with the cosmic subject is also in its favor. This subject, whose conception constitutes an important part of the Divine idea, has independent evidence in its favor. It is supported by the threefold cord of causality, analogy and rational necessity. Now, the Divine idea is the

completion of the cosmic idea. While the cosmic idea is the voice of part of man's nature, the Divine idea is the voice of his whole nature. While declining with Kant, therefore, to accept the idea of God as an adequate demonstration of God's existence, we must, I think, admit that it carries with it a very strong presupposition in favor of that conclusion.

Theism and its evidence starts with the Divine idea. Assuming the idea, however, other lines of evidence come in to strengthen its presumptions. The cosmological proof, as it is called, occupies a peculiar position. It reasons from the effect or contingent existence to the cause or necessary existence. Kant's objection that this alone is insufficient proof of God's existence is sound. But from what I conceive to be the true logical stand-point, it misses the mark. The cosmological proof is not designed to prove *God's* existence, but to prove the existence of a cosmic subject. It lies below the level of theism, but it touches the basis of theism. And that it is sufficient to establish this basis has, I think, been demonstrated in the argument set forth in the first part of this paper. The cosmological evidence founded, as it is, ultimately on the principle of causality, and proceeding by the necessary extension of the types of our inner experience to the outer world, is adequate to its legitimate object; namely, the development of the cosmic idea, the vindication of the existence of the cosmic subject.

The logical connection of the cosmological proof with the ontological lies in its establishment of the objective validity of *part of the Divine idea*. The Divine idea includes the cosmic idea, and the conclusion that the cosmic idea represents real existence carries with it a certain presumptive force in favor of the conclusion that the Divine idea represents real existence. After all, however, if the case for theism were to be rested here, we would have reached a lame and impotent conclusion. The logical completion of the proof requires the introduction of the physico-theological argument, or the proof from design. This argument is founded on the assumption that the principle of causality demands the explanation not only of the individual facts and phenomena of the universe, but also of the system

which these, taken as a whole, reveal. It finds in the system evidence of intelligence and foresight, and concludes from it to the necessary existence of an intelligent and intending author. In other language, efficient causality is not the only form of the causal principle which the phenomena of the world reveal. This they do reveal in detail; but the world, as a whole, consisting of inter-related and co-ordinated parts and systems, reveals intelligent purposive agency working toward the realization of ends. The cogency of this argument has been recognized by all thinkers. Kant grants to it a species of validity which he denies to the other proofs. He admits that it is sufficient to work practical conviction, but claims that it is logically insufficient as a positive demonstration. I am prepared to admit that, taken by itself and out of logical connection with other lines of evidence, it is not quite demonstrative. But the physico-theological proof, when properly understood, only professes to present part of the evidence for theism. It has a logical connection with both the ontological and the cosmological proofs. It is the inductive side of the former and the necessary complement of the latter. The ontological proof, founded on the Divine idea in the mind, furnishes a certain amount of presumptive evidence in favor of the existence of its object. But it is not logically conclusive. It requires inductive confirmation before it can be accepted as scientifically valid. We have seen how the generic features of the ontological idea are confirmed by the cosmological proof. The cosmic subject may now be accepted as a datum to be assumed in subsequent stages of the proof. But the specific features of the Divine idea, namely, its attributes of intelligence and consciousness, rise above the cosmological sphere, and are still in need of confirmation. It is this segment of theism, if we may use the term, to which the physico-theological evidence applies. The situation may be stated as follows: We have in our minds the conception of an intelligent and conscious First Cause of the world; of a Divine Agent, who not only brought things into existence, but who designed the end which they are realizing. For the truth of this idea there is a degree of presumption which is sufficient to produce general conviction, but not sufficient to satisfy skeptical doubts. The difficulties arise in connection with

the attributes of intelligence and consciousness. Our inner experience furnishes us with the idea of intelligent and conscious agency. It gives us the typical form of actions springing from ideas and tending to realize intentional ends. In the sphere of our own experience and that of our fellow-men, there are certain actions and combinations of actions tending to bring about certain species of results which we cannot be made to believe are the result of either blind impulse or chance-coincidence. And, consciously or unconsciously, we have incorporated the notion of this kind of agency into our conception of God and His relation to the world. The question, therefore, which the physico-theological proof has to settle is, whether the non-ego presents unmistakably the kind of phenomena necessary and a sufficient quantity of it to confirm this analogical assumption. Such a question can be answered only by careful and exhaustive observation of the phenomena of the outer world. The fundamental question to be settled is, whether the world-system, so far as it is open to observation, presents unmistakable evidence of the existence of an *intelligent agent* as its cause. The alternatives here will be the hypotheses of blind force, chance-coincidence, and intelligent agency. If we can discover in the collocations of things phenomena of adaptation and co-ordination which realize what is manifestly an intelligent and rational end; and if, especially, we can discover in the system of things a tendency to progressive adjustments and co-ordinations of a higher and higher order, so that a scale rising gradually from relatively simple and unintelligent to relatively complex and intelligent results is formed, we will have evidence that will justify the rejection of the hypothesis of blind force. The issue that remains is between chance-coincidence and intelligent design. The decision here turns on the *quantity* of the special kind of phenomena in question. If the intelligent adjustment is a rare occurrence, it may be explained as the result of chance-coincidence. Once in a long time enough of the right kind of circumstances might concur to produce the appearance of design. But if we find these intelligent adaptations to be the rule, and that a monstrosity in nature is a rare exception, we have sufficient evidence to justify us in rejecting the hypothesis of chance-coincidence. There will remain the hy-

pothesis of intelligent design, which, as the only one that explains the facts, will have received the objective verification required.

But even after the question of intelligence has been settled, there remain several alternative hypotheses between which we are obliged to decide. What kind of intelligence must we attribute to the First Cause? There are three conceivable species of intelligence, using that term in the broadest possible sense, instinctive, unconscious, and conscious.* What we call instinctive action is action which realizes an intelligent result, without intelligent insight into its nature. It is impulse without the guidance of an idea. The chief representative of this hypothesis respecting the intelligent agency in the world is Schopenhauer, who locates in the world a blind impulse (*Trieb*), which he names will (*Wille*). The striving of will realizes the idea (*Vorstellung*) as a result. But it is evident that this hypothesis of instinct or aimless will is reducible in the last analysis to that of blind force, and is discredited by similar considerations. There remain, then, the alternative suppositions of unconscious or conscious agency. Both unconscious and conscious intelligence presuppose that the will has before it an idea or representation. "Tendency" (*Trieb*), says Hartmann, "is only the empty form of the will." At the foundation of all volition that is not mere blind instinct, must rest an idea which supplies the end and direction of action. Assuming this, the question is whether the First Cause of the world must be conceived as unconsciously realizing intelligent ends or as being aware of what he is doing and as *intending* the result. Both these hypotheses assume that there are phenomena in the world which nothing but intelligence can explain. Resting on that assumption, it is fair to ask, which hypothesis furnishes the best *final* explanation of the facts? Would an explanation that attributes rational results to an agent who is not aware of what he is doing be more satisfactory than one that ascribes them to an agent who is aware of what he is doing? This suggests the real point of the question. We may admit that there are both species of intelligent action in the world. But which is most

* This phase of the theistic proof has been very subtly treated by Janet in his *Final Causes*, B. II., Ch. III.

final? Which is the absolute, which the relative form? These questions, it seems to me, will receive a pretty conclusive answer in the fact that, while we can conceive unconscious intelligent agency as accompanying or following from conscious agency, we cannot conceive it as standing absolutely alone. Hartmann locates an idea in the unconscious to which he attributes the guiding function, thus confessing that the unconscious alone furnishes no ultimate explanation. The phenomenon of intelligent action unconsciously performed simply suggests a problem. The reason of the process is to be sought outside of it. Only conscious intentional action has its reason in itself. Thus, by a process of gradual elimination of alternatives, we are left with the hypothesis which attributes intelligence and consciousness to the First Cause, as the only one that will at all explain the phenomena in question.

Now, if we accept the realistic postulates on which this argument has proceeded, the logical form of the theistic proof stands completed, and we may rest our case. We have in us constitutionally and inevitably the conception or notion of an intelligent and conscious agent in the world standing to its phenomena in the relation of First Cause. This conception springing up, as it does, spontaneously and irresistibly, has a presumption of considerable force in favor of its truth. It is sufficient to convince the majority of men that there is a God. But logically it is insufficient and requires confirmation. We cannot be absolutely sure that even such an idea as that of God is an adequate guarantee of the existence of its object. The confirmation we seek is supplied by the two proofs called cosmological and physico-theological. These two are mutually complementary, the cosmological establishing the generic attributes of the deity in the conception of a cosmic subject of the world's phenomena and activities; the physico-theological supplying the requisite inductive confirmation of the assumption that the world subject is also an intelligent personality. The idea of God has thus received the needed confirmation; the nexus between it and the real object has been established. The entire proof may be summed up in the proposition, often uttered, but seldom either completely understood or believed, that God is the necessary

presupposition of man and nature. Given the ego and the phenomenal world, and the existence of God is also given as the condition of their existence.

NOTE ON SOME DIVINE ATTRIBUTES.

The question of the Divine attributes comes up in connection with the evidence for God's existence. The British Kantians, Sir William Hamilton and Dean Mansel, conceived certain attributes, such as First Cause, Infinite and Absolute, in such a way as to remove them beyond the grasp of human thought. These are, however, necessary attributes of the Divine character; hence God cannot be an object of thought. He is both unthinkable and unknowable. Herbert Spencer follows Hamilton and Mansel in asserting the inconceivability of the Divine attributes, and, therefore, the unknowability of God. These thinkers, as I think, have followed an inverted logic. They have conceived and reduced to definitions certain attributes as First Cause, Infinite and Absolute, which they conceive to be essential to the Divine character. Then, because a being possessing such attributes is unthinkable, they conclude that God cannot be an object of thought.

Without impugning the logical acumen of these thinkers, I would suggest a reversal of the order. Instead of making the necessary being conform to preconceived attributes, I would make the conception of the attributes conform to the being. Herbert Spencer's procedure betrays the difficulties in which the inverted logic he inherits has involved him. After expatiating on the inconceivability of such attributes as First Cause, Absolute and Infinite, and the impossibility of conceiving a being that possesses them, he asserts that the Cosmic Power which underlies phenomena must possess just such a nature. This, it would seem, ought to lift this Power above the categories of thought and make it impossible to assert any relation between it and knowable being. But when he comes to the positive side of his theory, in order to escape *pure phenomenalism*, he is forced to bring back the Absolute into the sphere of related being. It then becomes the cause of which the phenomenal world is the effect, the Cosmic Subject or Power uttering itself in the changes of the

visible world; a being, in fact, which must be constantly guarded lest it reveal something of itself through its manifestations. The logical method proposed here and presupposed throughout the foregoing discussion begins where Spencer leaves off; namely, with the cosmic subject of the world's phenomena. Such a being is a necessary condition of the phenomenal world, and, as we have tried to show, is conceivable after the analogy of the forms of our inner experience. The fundamental postulate of philosophy, I am prepared to say with Spencer, is the existence of such a being. Let us assume the being, then, as we must, and adapt our conceptions of the attributes to the necessities of the case.

A First Cause is not a cause standing at the beginning of the series of phenomenal causes and effects. Were it such, we would be compelled to conceive an antecedent, and contradiction would arise. A First Cause is rather a metaphysical cause, a unitary subject or Power which conditions the series as a whole while not lying in the series. Analogy makes such a cause conceivable.

Infinite cannot be applied to God in what we would call the dimensional sense. Our ordinary notions of the infinite are derived from space and time. But the infinitude of such a being as God must be an infinitude of degree or intensity. It must be a dynamical not a mathematical infinite. Such a conception of infinity applies directly, not to God Himself, but to His attributes. To say that God is *the infinite* is to identify Him with an abstraction. But to say that He is infinite in power or wisdom or goodness is to convey a concrete intelligible meaning; for it means, as thus used, that these attributes are boundless. They transcend all conceivable limits that might be assigned to them. God is a being of boundless power, wisdom, and goodness. That is intelligible enough, although we cannot fully grasp it. *Absolute* cannot mean unrelational, as the British Kantians maintain. Herbert Spencer has a truer conception when he identifies the Absolute with the underlying cause of phenomena. *The Absolute* is an abstraction like the infinite. But absolute is a dynamical term, and must be construed in terms of causality. An absolute being is a metaphysical cause, *i. e.*, a non-dependent cause, one that is not in the series of antecedents and consequents, and thus

itself dependent on a prior antecedent. What absolute negatives is dependence, and not relation.

We thus reach a conception of these attributes which harmonizes with the idea of a knowable God. They leave the Divine Being intelligible, and yet they lift him immeasurably above our powers of comprehension. We may know God, but must still keep uttering the truly sublime sentiment of the sacred writer: Who by searching can find out God?

SOCIAL PROBLEMS: HOW THEY ARISE, WHAT THEY ARE, AND HOW MODERN POLITICAL ECONOMY VIEWS THEM.

[A Lecture delivered before the American Institute of Christian Philosophy, March 1, 1888.]

BY RICHMOND MAYO SMITH,

Professor of Political Economy and Social Science in Columbia College.

WHEN Adam Smith published his "Wealth of Nations" in 1776, he looked out upon a world very different from ours. Instead of a gigantic industry already developed, with its warehouses and factories and millions of work-people, he saw industry in its infancy, hand-labor, and just the beginnings of machinery. Instead of a world-wide commerce, traversing both sea and land by means of steam-power, he saw again only the beginnings, the increasingly profitable trade with the East and the West Indies. Still further, Smith saw, instead of the modern liberty to establish industries and to trade as one pleases, the regulation of all the business affairs of life by guilds, monopolies, and governmental action. We of this age and country can have scarcely any conception of the numberless ways in which government interfered at that time with industry. In England, for instance, there were in every village ale-tasters, bread-weighers, coal-meters, flesh-searchers, etc. All manufactured goods were subject to inspection, very often could be sold only at a certain place, as the cloth at the cloth-hall, and often only at a certain fixed price. I need not remind you of the onerous protective system which absolutely forbade the importation and exportation of many articles and laid heavy duties on the importation and exportation of others.

Against these restrictions of guilds, monopolies, and governmental action expanding industry and commerce rebelled. It desired to be free, and found itself prospering when it was free. It demanded liberty. The genius of Adam Smith showed itself

in perceiving this want of the new industry and commerce, and in formulating it into the principle of free competition. That was for his time and from his stand-point the desirable thing to attain, and the only right teaching for the new science. Adam Smith, therefore, and his disciples placed the principle of free competition as the guiding principle of political economy.

It often happens that a truth discovered by a master mind is distorted out of all relationship to realities by the too dogmatic and imitative repetition of it by disciples. The economists immediately applied the principle of free competition, which was a desirable thing for trade and commerce in Adam Smith's time, to questions of all sorts and arising under the greatest variety of circumstances. They decided all questions by the application of this one simple formula: "Perfect freedom of competition leads to the best social organization." Was the question one of foreign commerce? Their solution was: perfect free-trade, whatever the consequences may be to home industry. Was it a question of the oppression of the tenants by absentee landlords, as in Ireland, or the tying up of land in great estates by obsolete legal rules, as in England? The answer was: free-trade in land. Was it a question of the abuses incident to a factory system, the employment of women and children beyond their strength, or the crowding of workmen into unhealthy and unsafe factories? The answer still was: freedom of contract. Was it a question of unsafe and wild-cat banking, depreciating the currency, making trade uncertain and business speculative? The answer was still: freedom of exchange.

Modern political economy has broken away from the notion that complicated social problems can be solved by simple reference to an *a priori* formula like this. In the practical application of this formula also the economists were led into obvious absurdities: as when they pretended that the Irish cottier was on anything like an equality with his landlord in the rack-rent system; or the women and children with the capitalist in fixing wages in the English factory system. The attempt to apply the same principle to different countries with different civilizations and different economic conditions led to contradictions. The same rule cannot be applied to the Irish tenant dif-

fering in blood, religion, and sympathy from his absentee landlord, that could be applied to the English or Scottish tenant, animated very often by a feeling of loyalty to his landlord and treated by the latter with semi-feudal kindness. The economic rules applicable to a new country are not necessarily the same as those governing an old one. The character of the people, the resources of the country, its stage of development, are all to be taken into consideration.

Modern political economy has, therefore, abandoned the exclusive reliance on the old method of *a priori* reasoning, and attempts to investigate all the circumstances and all the conditions in each case. It is the realistic school in distinction from the ideal; the inductive in distinction from the deductive; the historical in distinction from the *a priori*. It studies the economic development of the world in order to understand present economic institutions; and it studies the practical problems of to-day in order to guide social action.

This modern political economy looks at social problems with three inquiries always in mind—viz.: How do they arise? What are the problems of to-day? and, What attitude are we to assume towards them? It will accomplish the purpose of this lecture if I can show you how economists work at these three points.

Social problems are generally looked upon with fear and alarm as something entirely abnormal and unforeseen. Notwithstanding the fact that the world has always had these social questions from the time of the Gracchan agrarian laws down to that great cataclysm, the French Revolution, and the present, the common observer looks upon each succeeding difficulty as presaging entire ruin and destruction to civilization. He sees, of course, only the single event, and not the chain connecting it with the progress of history. The economist, particularly, is apt to judge things solely from his own point of view, and to disown any change in present institutions as destructive to the interests of society.

The new political economy avoids this danger by ranking itself avowedly as one of the social sciences; that is, of those sciences which deal with the phenomena of organized human life.

This organized human life which we call society is a very complex affair, and has many sides to it. The principal of these are the economic, having to do with the satisfaction of material wants; the political, having to do with the state-organization; and the legal, having to do with the rights of individuals and of property. Hence the social sciences *par excellence* are Political Economy, Jurisprudence, and Political Science. These different parts of the social organization are intimately connected with one another, so that each conditions the other two. The political constitution of England would be entirely useless to a savage tribe; while, on the other hand, the economic resources of a people in the hunting stage of civilization would not support the legal and state fabric of European nations of to-day.

In normal periods of the world's history different social institutions are in harmony. And, notwithstanding the constant flux of all human things, there have been some periods when social institutions were so well adjusted to each other that there was considerable harmony and rest and quiet. All through the mediæval period there was an economic organization—feudal tenure of land—which made one man economically dependent on another; and we have landlord and tenant. There was at the same time a political organization—the feudal system—which gave all sovereign rights to the land-owner; and we have over-lord and vassal. There was, finally, a legal organization—feudal law—which recognized the existing state of things and placed the power of administering justice in the hands of the superior. We are apt to look back upon the middle ages with feelings akin to contempt; but however rude the civilization, it was at least harmonious with itself. The mass of the community were dependents, but they had some one to be dependent upon—unlike the wandering, homeless proletariat of modern times; and some socialists are inclined to look back with favor to the time when a common man was bound to the soil, but at the same time could not be driven from it. The civilization of that day was not progressive; but the most eminent of English economists, after considering the results of economic development by machinery, etc., has declared the stationary state to be the desirable condition. At any rate, so long as a civilization remains in this condition,

there is harmony in the social organization, and there are no social problems.

Social problems arise when the different sides of the social organization get out of harmony with each other. When a nomadic tribe becomes stationary, the permanent occupation of land gives rise to private property, resulting in inequalities of wealth which destroy the former political and legal equality, thrusting a portion of the community down into the condition of serfs. The rise of city populations destroys the power of the feudal noble and causes civil war. The economic prosperity of serfs gives rise to peasant rebellions, just as increased intelligence and power make the modern working-classes discontented. Social problems are in themselves sure signs that either the economic development has outstripped the political, or legal, or both of them; or the political has outstripped the economic, or the legal, or both. Generally, but not always, it is the economic organization that outstrips the political, and the political, the legal; for it is generally a change in economic position that shifts the balance of political power from one class to another; and the legal development is simply the final expression of changes in relative power which have already taken place.

Let us turn now to the social problems of to-day and inquire what they are, and to what lack of harmony in our social organization they are due. As we survey them, the thing that strikes us at first glance is that they are almost all of them economic in character. In past times social problems have taken on the character largely of political problems. As the nations of Europe emerged out of the shadows of the primeval forests of Germany, the first problem was the establishment of the State itself. After the Germans had spread over the Roman Empire, the next work was the establishment of nationality, and out of the wreck of Roman provinces there arose the peoples of modern time, the English, the German, the French, and the Italian. Then came the great question of State and Church, the emancipation of the secular from the ecclesiastical power, the struggle going on from the time of Hildebrand to that of Luther. Then came the question of the limitation of the absolute monarchy by the establishment of a representative system, with power of making laws and

voting taxes. In England, for instance, this struggle began with Magna Charta, but culminated in the civil war of 1642 and the revolution of 1688. Finally came the Declaration of American Independence and the French Revolution, establishing the political liberty of the individual, the equality of all men before the law, and the abolition of privileged classes. In all the civilized countries of the world these political and civil rights have been firmly established by the French Revolution and the reform movements since then. Purely political problems are for the most part solved and the evolution seems complete; at least no further evolution in the same direction seems possible.

On the other hand, if we look at the nations of to-day, they are all struggling with economic problems. In England the burning question is the Irish question, which in its origin is an economic question, viz., the ownership of land. In England itself the land-question is already in the front, and immediately behind it comes the housing of the poor. In Germany, since its unification has been accomplished, the great movements have been economic; the appropriation of railways by the State, the establishment of a protective system, the desire to impose monopoly taxes on tobacco and spirits, the compulsory insurance of workingmen, the chancellor's colonial schemes, and behind them all, and overshadowing them all, the struggle with socialism. In France, too, they have both protectionism and socialism; the expenditure of money for internal improvements and the financial embarrassment of an enormous debt, the legacy of the second empire and the German war. In this country protection and free trade we have always with us; the silver question finds no solution at Washington, and grows more and more threatening; Granger legislation and railroad commissions betoken the presence of corporate monopolies; the great railroad strikes, the boycott, the Knights of Labor, the Anarchists in Chicago, and Henry George's candidacy for political office, all are symptoms of our great economic question of the present and the future—the relation of capital and labor. Everywhere in the civilized countries of the world the burning questions of the day are economic.

The cause of the dominance of these economic questions at

the present time lies in the wonderful economic progress of the last one hundred years and its peculiar relation to the political development of the same period. The characteristic mark of this economic development has been the introduction of steam and the invention of machinery. These have had momentous consequences. The old hand-laborers found their occupation gone. Their work was done by machinery. The old skilled labor was no longer necessary, and its place could be taken by the unskilled labor, often of women and children. The old organizations of labor, guilds, apprenticeship system, etc., were destroyed. Great numbers of workmen were gathered together in factories. Here they were very much at the mercy of the employers, for they could not work except with machinery, and their places could readily be taken by others at a moment's notice. Congregated in great factory towns, they became a class by themselves—the factory hands.

The first consequence of the establishment of this factory method of production has been the universal adoption of the wage-system. The employer furnishing the machine and the warehouse, all he needed was the time of the laborer. For this time he paid the laborer wages and then was quits with him. After that he was entirely without responsibility—the workman might starve, the employer felt it to be no concern of his. Always before in the organization of labor there had been something human in the relation between master and servant. Even in slavery and serfdom the master might abuse the slave and tyrannize over the serf; he never entirely cast him off. In the modern system there is almost entire lack of sympathy between employer and employee; the latter hates the former, class feeling is nourished, and every social problem is intensified ten-fold. In fact, the first and one of the greatest of our social problems is this entire lack of sympathy between the men who co-operate in the production of wealth, typified in the wage-system.

A second consequence of the factory system is commercial crises. In former times production was regulated by demand. Now we produce on an immense scale and for an unknown market. In every branch of production there is room for the man who can produce a little the cheapest. He can undersell

his competitors, command the market of the world, and produce on an unlimited scale. But at the same time he is subjected to the most strenuous competition. He may be undersold by men thousands of miles distant, or ruined by the failure of a crop in a foreign country, or cut off from his market by the combinations of some great transportation company. Modern business is intensely speculative. Men grow rich by lucky chance, or poor through no fault of their own. These commercial crises once started, pursue their destructive course through the civilized world; for every man is either a buyer or a seller, and is thus drawn into the whirlpool.

The most serious side of these commercial crises is not the loss of capital, but the extreme uncertainty of employment which they cause. So soon as the demand ceases, the factory is closed and hundreds of workmen are thrown out of employment. They are willing to work, but there is no work to be done. It is practically impossible for the employer to keep on running the factory because of the enormous loss. In all the investigations of the condition of the laboring class in this country, the universal testimony of workingmen has been that they would get along very well if work were only certain and steady. It is not low wages, but the number of days they are obliged to lie idle, that brings them hardship and financial ruin. This is the second great social problem of our age—how to insure greater stability in the work of production, so as to give each man who is willing to work a chance to earn his bread.

A third consequence of the introduction of machinery and of manufacturing on a large scale has been the accumulation of wealth and capital in the hands of a few, and especially in the hands of great corporations. So soon as you commence to use machinery you give to the capitalist the same power over other men that the owner of land possessed in the feudal system. For, although machinery is absolutely necessary in the work of production, it is so expensive that the ordinary laborer cannot possess it. They must use that which is in the hands of the capitalist. Again, the use of machinery encourages manufacturing on a large scale, and this commonly ends with the ruin of the small producer. For the man who does business on a large scale

has numerous advantages, in buying and selling, in the division of labor, in commanding the market, in surviving an industrial war, etc. The constant tendency is for the organization of capital to grow larger and larger, and this is accentuated by the natural demands of our civilization, whose wants are on a greater scale than ever before. The problem of great corporations monopolizing the business of the country, is one that concerns every individual consumer. This problem is: How shall we carry on the great work of production and transportation without placing the individual, with all his economic interests, at the mercy of the corporation?

These problems thus far,—viz., the wage-system, commercial crises, and corporative monopolies,—may be said to have arisen from the changes in the economic organization itself and the magnitude of those changes. They are the natural result of the present system of production on a large scale with the use of machinery.

There is another class of problems, which arise not so much from the expansion of the economic organization as from a dis-harmonious development of the political and the economic organization. The characteristic mark of political development since the French Revolution has been the establishment of the principles of individual liberty and political equality. The whole tendency of modern economic development, however, has been towards the establishment of economic inequality. The political development and the economic have thus been pulling different ways. This antithesis was felt very early after the beginning of the French Revolution; and underneath and behind the purely revolutionary movements in France there always lay a social movement, which broke out in the communistic insurrection of Babeuf in 1797, and later in the labor movement of 1848 and the Commune in 1871. The expression of this inequality in economic condition, which is apparently in such antagonism to the principle of political equality, is the institution of private property; and, accordingly, we have now the attack on private property called Socialism. This is the problem lying back of all our social problems of to-day, for Socialism demands the overthrow of historic civilization in order that the mass of men may attain

greater material enjoyment. Men are equal before the law, and they are equal in political rights—there must follow logically, according to Socialism, equality in economic condition, or at least in economic enjoyment.

These, then, are the social problems of to-day, and this is the explanation of their origin.

Let us consider now what attitude modern political economy teaches us in respect to these social problems we have just enumerated. This attitude, according to the conception of political economy developed above, is as follows:

(1) Modern political economy teaches us not to be too much alarmed by the presence of social problems. The study of history and social science shows that social relations are continually changing, and that scarcely ever are all the different parts of the social organization accurately adjusted to each other. There has always been in the world a party of discontent, complaining that social institutions oppress them; and it is not at all probable that we shall ever reach a position where universal happiness will prevail. It is not, of course, an encouraging sign when social discontent prevails widely, but every age has its problems, and ours are no worse than those of many preceding periods. However oppressed our lowest class may be, it will hardly be seriously contended that we have made *no* advance out of slavery and serfdom; and if civilization has not benefited the working classes relatively, yet it has done so absolutely, a gain we are apt to value too slightly.

(2) Modern political economy teaches us that the changes which have come about in the industrial system were inevitable, and are now fixed and necessary facts. We must have the modern factory system and machinery and production on a large scale. In no other way can the populations of modern times be fed and clothed and made comfortable. We must have capitalists and the capitalistic method of production, great transportation companies, huge factories, and factory towns. The conditions of commerce and industry at the present time demand all these things; and we could no more go back to hand-labor, sailing ships, and stage-coaches than the whole population of this city could betake itself to the forest and live again in the savage

state. We must reconcile ourselves to our industrial organization such as it is, and give up alike the dream of going back to a former golden age, and the Utopia of a bodily substitution of a new ideal organization for the present. We stand on the basis of historic civilization, and that both explains the past and justifies the present.

(3) Modern political economy teaches us to be *radical* enough to admit that some further change in social institutions may take place, and even some improvement be possible. The wage-system, factory system, production and transportation on a large scale may be necessary parts of our social organization, but in their present crude form they bring with them evils which should be cured. We must never believe that we have reached the perfect system, but listen patiently to complaints and strive to adjust social institutions to the present wants of man. There is needed in our modern economic organization some change that shall bring the producers of wealth into more harmonious relations; that shall insure greater certainty of employment to the working-man, and free the general public from the power of corporations. Modern political economy is radical enough to believe that this will be brought about by the formal recognition of organized labor as a partner in the production and as a sharer in the produce; but in whatever way this is to be accomplished, by co-operation, by industrial partnership, or by trades-unions, political economy will welcome the solution as the necessary completion of that economic organization which has been only partly developed thus far.

The antithesis between political liberty and economic inequality must also in some way be reconciled, and political economy is radical enough, again, to say that very likely this may demand, to some extent at least, an extension of the functions of the state. The state was established for the preservation of order, that is, to protect one man in his life and liberty and property from the violence of more powerful men. In modern times the more powerful are the wealthy and the unscrupulous, corporations and private monopolies, and one does not see why the state should not protect the individual against these dangers as well as against highway-robbers and burglars. At

any rate, the whole drift of modern legislation, Irish land laws, railroad commissions, factory laws, etc., is in that direction, and this at least shows us that there was or is some want in the social organization which we are trying to satisfy.

(4) Finally, modern political economy teaches us to be *conservative* in the changes we desire or attempt. Social institutions are the result of a long process of development, and it is reasonable to suppose that, as a rule, they are adjusted to the nature of man. They are not to be lightly overthrown or cast aside, for thereby we lose the basis on which historic civilization rests.

The two things which lie at the foundation of our modern civilization, and which have been the final result thus far of the evolution of the human race, are the principle of individual liberty and the institution of private property. Liberty, not only from subjection to another, but liberty to make what use one pleases of one's powers and talents; liberty to travel, liberty to choose an occupation, liberty to trade: all this is the fruit of long years of contest and struggle against feudal nobles, guilds and monopolies and absolute monarchies. This liberty is to be surrendered neither to capitalist nor to boycotter, but is to be preserved as the hard-won fruit of civilization. Private property, again, is an institution which has grown up step by step with civilization. We have no historic knowledge of any high civilization which has ever existed without it; and we do not see how sufficient inducement could be given the individual to carry on the onerous work of production if we did not in some way assure to him the fruit of his labor.

Finally, the functions of the state are probably extending themselves; but experience shows us a limit to these functions. The state in our present stage of civilization could do a great many things better than the individual does them; just as a parent can do for a child almost everything better than the child can do it for itself. But just as the child, if the parent do everything for it, never attains an efficient manhood, so the individual, if the state does everything, is never able to do anything, but is at the mercy of the bureaucracy which administers the state. In other words, the functions of the state are never to be so far extended as to destroy individual character and energy, for thereby

the state destroys civilization itself. The state is not a socialistic organization intended to relieve the individual of all responsibility, but an organization intended to assist the individual in his pursuit of happiness.

It is in this sense, therefore, in a strong historical conviction of the importance of the principle of individual liberty and the institution of private property and a philosophical conviction of the worth of individual character and energy, that the new political economy, while fearlessly radical in looking at social problems, is also intensely conservative.

ENERGY'S ETERNITY.—Correlation is a word proposed by Mr. W. R. Grove, in 1842, and means "mutually convertible." He says: "Light, heat, electricity, magnetism, motion, are all convertible material affections. Assuming either as the cause, one of the others will be the effect." Let us take as an example motion and heat. Their relations were first established by Mr. Joule, in 1849, and after seven years' patient investigation he found that the amount of mass motion in a body weighing one pound, which had fallen 772 feet, was exactly equal to the molecular motion which must be added to a pound of water in order to heat it one degree Fahrenheit. If we call the actual energy of a body weighing one pound which has fallen one foot, a foot-pound, then we may speak of the mechanical equivalent of heat as being 772 foot-pounds. Tyndall has made the calculation that our earth, moving with a velocity of 19 miles a second, would strike with a force of 98,416,136,000,000,000,000,000,000 tons! Were this energy all converted into heat, it would equal that produced by the combustion of 14 earths of solid coal. Take note, also, that all energy, not active in motion, is potential in attraction, from which it follows that in the attraction we have energy stored up for future use. The sun is thus storing up energy. Every minute it raises 2,000,000,000 tons of water to the mean height of the clouds, $3\frac{1}{2}$ miles, and the actual energy set free when this water falls, is equal to 2,757,000,000,000 horsepower.

THE RELIGIONS OF INDIA.

[Read before the Society of Arts, London, February 24, 1888.]

BY SIR WILLIAM WILSON HUNTER.*

I LATELY read in a newspaper that the average cost of educating each student in a certain college at Oxford is £6,481. The calculation was, from an arithmetical point of view, unsatisfactory. The revenues of the college were correctly given, and when divided by the number of so-called students they showed this enormous expenditure. The ingenious statistic had, however, overlooked the fact that the income of that college is not applied to educating students itself, but to strengthening the teaching staff of the other colleges, or of the University, and to the endowment of research. No one, so far as I am aware, took the trouble to expose the miscalculation, and it passed as an amusing example of the abuse of figures. There is a miscalculation, similar in kind, but fraught with more serious consequences—sometimes heard on English platforms, and reiterated in the press—which saddens the hearts of thousands of earnest men and women in this country, and which carries discouragement to hundreds of devoted workers in distant lands. When I hear the result of Indian missions estimated by dividing their expenditure among the number of their conversions, and then giving the cost of each new convert at so much a head, the same effect is produced on my mind as by the statement regarding the average expenditure on each of the so-called students at that Oxford college. There may be initial periods of missionary effort among the Polynesian and African races to which a calculation of this sort can be properly applied. On that point I do not presume to offer an opinion. But speaking of the country in regard to which my own experience enables me to speak, the country which in our times forms the great field of missionary labor, I declare that

* No more important paper has appeared anywhere this year, in our judgment, than this by Sir William Hunter. It is timely, in view of recent discussions, and authoritative, because of its source. We think that all our readers will be pleased to read and preserve it.

no true ratio exists between missionary expenditure or missionary work in India and the number of new conversions. I affirm that calculations based on the assumption of such a ratio are fundamentally unsound. It has been my duty to inquire into the progress of the various religions of India. The inquiry discloses a rapid proportionate increase among the native Christians, unknown among the Muhammadan and Hindu population ; but it also proves that the increase bears no direct relation to the new conversions from orthodox Hinduism and Islam. For this misapplication of statistics the friends of missionary enterprise were originally in some sense responsible. The great outburst of evangelistic effort in India took place during the upheaval of Dissent against lukewarm orthodoxy in England. The first idea of our missionaries was to make converts from the established religions of India, as some of our Dissenting bodies at home hoped to swell their numbers at the expense of the Established Churches of Great Britain. During the past fifty years this idea has been modified. Experience has shown that a vast increase of activity and usefulness among the English and Scottish sects outside the Established Churches is not only consistent with, but has actually proved concurrent with a vast increase of activity and usefulness within those Churches. It has also shown that the progress of Christianity in India is compatible with the progress of Hinduism and Islam. For as the Dissenting bodies of Great Britain have in our century won their great successes not by a large absorption of good Churchmen, but by their noble labors among the encompassing masses on the outskirts of religious life, so the missionaries in India have chiefly made their converts, not from the well-instructed Muhammadans and Hindus, but among the more backward races, and from the lower castes, who are destitute of a high faith of their own. There have been many conspicuous exceptions to this rule. But the rule has been so general, and the possibility of common progress is so evident, that a violently aggressive attitude towards the native religions is felt to be unsuitable in India, very much as the old *odium theologicum* between the Established Church and Dissent is felt to be an anachronism in England. In both countries it is the poor that have had the Gospel preached to them. In both countries

the leaders of Christian thought have read again the opening words of the first missionary sermon, and recognized that in every nation he that feareth God and worketh righteousness is accepted with Him. In India especially a religion must be judged, not by its alarms and incursions into other encampments, but by the practical work which it does for its own people. For in India religious organization plays a part in the social structure which it has long ceased to discharge among the more consolidated nationalities of Europe. The religious bond has to do in India for a dense population—subject to the overwhelming calamities of the tropics, and destitute of any poor law—what a highly developed system of State relief does for England. It has also to take the place of the innumerable charitable organizations which in England supplement and humanize State relief. The religious bond in India has to exercise the constraining moral influences on a multitude of self-contained communities, which the cumulative force of public opinion exerts in more homogeneous nations. The religious force in India had, until our own days, to supply the motive power of education; nor are signs wanting that it will again assert itself actively in the spread of Indian schools. The religious bond in India forms an important factor in mercantile credit, and tends to concentrate trade within certain communities of joint believers. To sum up, religious organization in India does the work of public opinion and of poor law; it forms the basis of private benevolence and of mercantile credit; it supplied until lately the motive power of public instruction. In such a country, I repeat, a religion must stand or fall by what it does for the well-being of its own people. I propose to apply this principle to three great religions of modern India—Muhammadanism, Hinduism, and Christianity. British rule has created a new world in India, with new problems of existence, which each community must solve for itself. What power do the various religions disclose of adapting themselves to this new world? What solutions do they offer for its new problems? I am well aware that any theological discussion, or even any expression of my own belief, would be out of place within these walls.

But while, in addressing this society, I confine myself to the

social results of Christianity in India, I by no means wish to urge my present point of view to the exclusion of its more spiritual aspects. There is a dense and dark mass of fifty millions of human beings in India, lying on the outskirts or beyond the pale of orthodox Hinduism and Islam. I believe that within fifty years these fifty millions will be absorbed into one or other of the higher faiths, and that it rests in no small measure with Christian England whether they are chiefly incorporated into the native religions or into Christianity.

But a cordial recognition of the wide field for evangelical labors does not exempt Christianity in India from being judged by its present results. Nor need the friends of missionary enterprise shrink from the test; for while the number of native Protestant Christians has increased by five-fold during the thirty years preceding the last census, the number of their communicants has multiplied by nearly ten-fold. The progress has been a progress of conversion, concurrent with a progress of internal growth and of internal discipline. It is the result, not alone of the zeal which compasseth the earth to make a proselyte, but also of the pastoral devotion which visits the fatherless and widows in their affliction, and labors to keep its flock unspotted from the world.

In considering the practical aspects of the three religions, it is convenient to begin with the Muhammadans. Islam represents in British India a compact and coherent mass of forty-five millions, who, in spite of internal divisions, are more closely united than any equally large section of the people by a common religious bond. For this vast aggregate a rate of progress has been claimed in a recent discussion in *The Times*, which, if well founded, would have an important political and social significance. We may miss the fine courtesy of St. Paul in the controversy of the canons; but their appeal to statistics was substantially a just appeal.

Any general inferences, however, deduced for the whole of India from the last census are fallacious, for the great Muhammadan provinces lay outside the influence of the famine of 1877. That calamity fell with its full force on the essentially Hindu Presidency of Madras, and on the Hindu districts of Bombay. The British Provinces of the Indian continent beyond the famine

area of 1877 were seven in number; the Lieutenant-Governorship of Bengal, which contains nearly one-half of the whole Muhammadans of British India, Assam, the North-Western Provinces, Sind, the Central Provinces, the Punjab, and Oudh. In the first five of these a census was taken in 1872, and another census in 1881, and we can compare the results of those enumerations. In the last two—viz., the Punjab and Oudh—no census was taken in 1872, and the census officers of 1881 declared that in these two provinces *data* did not exist for testing the progress of the religious divisions of the people. Taking the same area of enumeration, and avoiding the pitfalls into which persons unfamiliar with the Indian census are apt to stumble, the facts in the five Indian provinces outside the famine of 1877, and for which we possess comparative *data*, are as follow:

PROPORTIONATE PROGRESS OF MUHAMMADANS TO GENERAL POPULATION,
FROM 1872 TO 1881.

	Increase of General Population.	Increase of Muhammadans.
	Per Cent.	Per Cent.
Lieut.-Governorship of Bengal.....	10.89	10.96
Lieut.-Governorship of the North-Western Provinces (without Oudh).....	6.30	7.16
Sind.....	9.56	9.93
Assam.....	19.23	19.17
Central Provinces.....	25.21	18.55

The slight differences (where they exist) may be accounted for by local circumstances. Thus, in the North-Western Provinces, the Musalmans live more in the cities than the Hindus, and they are less influenced by the intense pressure of the population on the soil, which keeps down the increase among the rural inhabitants. In Bengal the Muhammadans chiefly occupy the eastern districts, in which there is still plenty of spare land, and consequently a high normal increase of the population. The census officer for Bengal states that no conversions to Islam on a considerable scale can have taken place since 1872. The census officer for the North-Western Provinces reports in the same

sense, but in greater detail. "I have consulted experienced and observant district officers throughout the province," he writes, "and they all agree that there is no active propaganda of Islam to be met."

There are, however, many motives apart from conscientious religious conviction, which induce Hindus to embrace the faith of Islam. Mr. T. Stoker, C.S., in a note furnished to me on the subject, writes:—"In this part of India there has been no such thing as a religious conversion from the Hindu to the Musalman faith. Even a solitary case might be sought for in vain of such a change of religious belief from conscientious conviction. But a certain, though a small, amount of conversions is going steadily on. It proceeds from social and economical reasons, and is confined to the lower orders, and, I should judge, occurs oftener among females than males. Hindus who have, for one reason or another, lost caste; women who have fallen into an immoral life; men who have abandoned their family faith for the sake of a woman of the other creed—these, and such as these, release themselves from the restraints and inconveniences of caste rules by adopting Islam. In such conversions religious feeling has no place. Years of famine are fruitful in such changes. Children, or women, whose parents or relatives died or deserted them—persons of all ages and both sexes, who were forced by distress into acts which destroyed their *status*—go over to a religion that receives all without distinction."

But while the statistics do not indicate any extraordinary increase of the Indian Muhammadans during recent years, they speak in eloquent language of the progress made by Muhammadanism in the past. The popular idea of Islam in India is that of a conquering creed, which set up powerful dynasties, who in their turn converted, more or less by force, the races under their sway. This theory is refuted by the facts. Excluding the frontier province of the Punjab—which, but for the religious revival represented by the Sikh confederacy, ought, in the course of historical events, to have become almost as exclusively Muhammadan as Afghanistan—the part of Northern India which is most strongly Muhammadan is the part most remote from the great centres of Muhammadan rule. In the British Lieutenant-

Governorship of the North-Western Provinces and Oudh—which at one period or another of its constitution contained the three Muhammadan capitals of Delhi, Agra, and Lucknow, and in which the Muhammadans were pre-eminently the dominant caste—the proportion of Muhammadans to the general population is under thirteen and a half per cent. In the British Lieutenant-Governorship of Lower Bengal, far remote from the three Muhammadan capitals, the proportion in 1881 was thirty-one per cent.

But the facts come out more clearly if we compare the districts immediately around the ancient Muhammadan capitals with districts on the outskirts of the Muhammadan empire. In Delhi district, including the metropolis of the Mughals, the Muhammadans do not form a fourth of the population; in Agra district, including the Muhammadan capital of Agra, they barely exceed one-tenth. But in Rajshahi district, bordering on the remote Gangetic Delta, the Muhammadans exceed three-fourths of the whole population; and in Maimansinh district, on the farthest limits of Lower Bengal, they amount to two-thirds. Indeed, throughout the seven most eastern and most distant districts of Lower Bengal the Muhammadans form close on 8,000,000 of the 12,000,000 inhabitants, or practically two-thirds of the whole population.

The explanation is that in Northern India Islam found itself hemmed in by strongly organized forms of Hinduism of a high type, on which it could make but slight impression. Indeed, Hinduism here reacted so powerfully on Islam that the greatest of the Mughal sovereigns, Akbar, formally renounced the creed of the Prophet, and promulgated a new religion for the empire, constructed out of the rival faiths. But the Muhammadan adventurers and missionaries who penetrated into the swamps and jungles of Lower Bengal found there a population of low-castes, very different from the compact Hindu communities of Northern India.

To these poor people, fishermen, hunters, pirates, and low-caste tillers of the soil, whom Hinduism had barely admitted within its pale, Islam came as a revelation from on high. It was the creed of the governing race; its missionaries were men of zeal

who brought the Gospel of the unity of God and the equality of man in its sight to a despised and neglected population. The initiatory rite rendered relapse impossible, and made the proselyte and his posterity true believers for ever.

In this way Islam settled down on the richest alluvial province of India, the province which was capable of supporting the most rapid and densest increase of population. Compulsory conversions are occasionally recorded. But it was not to force that Islam owed its permanent success in Lower Bengal. It appealed to the people, and it derived the great mass of its converts from the poor. It brought in a higher conception of God, and a nobler idea of the brotherhood of man. It offered to the teeming low-castes of Eastern Bengal, who had sat for ages abject on the outermost pale of the Hindu community, a free entrance into a new social organization. It succeeded because it deserved to succeed.

The proselytes carried, however, their old superstitions into their new faith. Their ancient terror of the unseen malignant powers reasserted itself with an intensity that could not be suppressed, until the white light of Semitic monotheism almost flickered out amid the fuliginous rites of low-caste Hinduism. In the cities, or amid the serene palace life of the Musalman nobles and their religious foundations, maulvis of piety and learning calmly carried on the routine of their faith. But the Muhammadan masses in large parts of Lower Bengal relapsed into something little better than a mongrel breed of circumcised Hindus, few of whom could repeat the simplest formula of Islam.

During the present century one of those religious revivals, so characteristic of India, has swept across the Muhammadans of Lower Bengal. Itinerant preachers passed from district to district, calling on the people to return to the true faith, and denouncing God's wrath on the indifferent. The Bengal Musalmans have, to a large extent, purged themselves of low-caste superstitions and rural rites. This re-awakening of the old Puritan spirit of Islam has widened the gulf between the Bengali Musalmans and the Hindus. It has also increased the difficulty which the Bengal Muhammadans find in accepting the system of religious toleration imposed by British rule.

Apart from temporary disturbing influences, such as the political preaching of Wahabi missionaries, the answer which Islam gives to the modern problems of India differs widely in different provinces. In the North-Western Provinces and Oudh, where the Muhammadans were for centuries the dominant class, they have vigorously vindicated their position in the new world of British India.

Finding that the only claim to administrative employment recognized by our Government is the individual's own fitness for the discharge of public duties, they have strenuously qualified themselves for official life. The proportion of Muhammadans in the schools and colleges under the Lieutenant-Governor of the North-Western Provinces and Oudh is in excess of their ratio to the general population. They show also an admirable energy in independent educational efforts, and the great Muhammadan College at Aligarh, founded in our own days by the Musalman nobles and gentry, would do honor to any age or to any country of Islam. Competing successfully with the Hindus at school, the Muhammadans of the North-West and Oudh also compete successfully with them in life. While the Musalmans number under thirteen and a half per cent. of the population in that British Lieutenant-Governorship, they have won for themselves thirty-four per cent. of the administrative offices. In the superior grades they engross an even larger share. While forming not one-seventh of the population, they have won four-sevenths of the highest judicial and executive posts, open impartially to Muhammadan and Hindus. In Bombay, apart from Sind, the Muhammadans largely belong to the merchant classes. They take fair advantage of State education up to the standard required for their own work in life.

While the Muhammadans have thus asserted themselves as the old dominant race in the North-Western Provinces and Oudh, and as practical trading communities in Bombay, the Musalmans in Lower Bengal have fallen behind in the race. In 1871, when they formed thirty-two per cent. of the population of Lower Bengal, they only numbered fourteen per cent. in the schools and four per cent. in the colleges. Their inability to adapt themselves to our educational system told heavily against

them in life. In 1871 only ninety-two gazetted appointments in Lower Bengal were held by Muhammadans, as against 681 held by Hindus. From the open professions they had almost disappeared. To take one example.

At the beginning of the century nearly the whole of the pleaders of the Calcutta High Court were Muhammadans, and down to 1838 they numbered about as many as the English and the Hindu pleaders put together. But with the introduction of scholastic tests, based on our Indian system of education, the Muhammadans fell out of their hereditary profession, and of the 240 native pleaders admitted from 1852 to 1868 only one was a Musalman. The poverty and discouragement which this state of things wrought among the Bengali Musalmans attracted the earnest consideration of the late Lord Mayo, and in 1871 measures were taken to render our system more congenial to the Muhammadans of Lower Bengal. The result has been to awaken a new vitality among them. Two powerful associations in Calcutta, with branches in the Muhammadan districts, now stimulate and direct local effort. The number of Muhammadans at schools known to the Education Department in Lower Bengal has risen from 28,148 in 1871 to 261,887 in 1881.

This enormous increase is chiefly due to the extended sphere of the Education Department itself. But the proportion of Muhammadans at schools in Lower Bengal also rose during the same period from fourteen to twenty-four per cent., an increase of seventy per cent. in ten years. In 1883 they obtained still further concessions from the Education Commission. The position of the Bengali Musalmans in the public service and in the open professions has also improved, although more slowly; for the effect of their new educational activity will bear its full fruits only when the rising generation have established themselves in life. It must also be remembered that the Bengali Musalmans are largely drawn from the peasant class, which does not naturally seek official employment.

Broadly speaking, therefore, while the old dominant Muhammadan races of the North-West and Oudh, and the keen merchant Muhammadan communities of Bombay, have vigorously accommodated themselves to the new world of British rule, the

Muhammadan masses in Lower Bengal have disclosed a more tardy capacity of adaptation, although they have strong capabilities of adjustment, as proved by their progress since 1871.

Islam in India has shown that it is perfectly able to dwell in peace and comfort in the new Indian world. This, moreover, in spite of drawbacks arising from the too exclusively religious character of the Muhammadan primary schools. The one object of the young Hindu apart from his home religious training is to get such an education as will fit him for success in life. But with the young Musalman the teaching of the Mosque must precede the lessons of the school. Before he is allowed to begin his secular education, he must ordinarily devote some years to a course of sacred rudiments. Again, while the ablest of the Hindus look forward to the public services or the secular professions, a Muhammadan father often chooses for his most promising son the vocation of a religious man of learning. The years which the Hindu student gives to English and mathematics at a Government college the Muhammadan devotes in a madrassa to Arabic and the law and theology of Islam. These differences, in regard both to primary and to higher education, heavily weight the Muhammadans in the race of official or professional life. But the sternly religious character of their early teaching gives a vigorous coherence to Islam in India, which may yet be productive of great political results. I have spoken at some length of the Musalmans, because, notwithstanding provincial differences, it is possible to deal with Indian Muhammadanism as a whole.

But Hinduism is so vast and so various that it is not practicable to treat it comprehensively without overstepping the limit of time allowed me. I shall, therefore, briefly state the main results at which I have arrived, and I respectfully refer those who desire to test my conclusions to the more complete analysis of Hinduism in my "Indian Empire."

Hinduism is a social organization and religious confederacy. As a social organization it rests on caste, with its roots deep down in the tribal elements of the Indian people. As a religious confederacy it represents the coalition of the cultured faith of the Brahmans with the ruder rites and materialistic beliefs of the

more backward races. In both aspects Hinduism is a deliberate system of compromise. For the highest minds it has a monotheism as pure as and more philosophical than the monotheism of Islam. To less elevated thinkers it presents the triune conception of the Deity as the Creator, the Preserver, and the Destroyer—with the deeper doctrine super-added that destruction and reproduction are fundamentally one and the same process. To the materialistic multitude it offers the infinite phases of Divine power as objects of adoration, with calm indifference as to whether they are worshiped as symbols of the unseen Godhead, or as bits of tinsel and blocks of wood and stone. It resolutely accepts the position that the spiritual needs of races differ in each stage of their development, and that man most naturally worships what for the time being he most reverences or most fears. On this foundation, Hinduism has built up the enduring but ever-changing structure of Indian ritual and belief.

As a social organization, Hinduism is even more fundamentally based upon compromise. It declares, under solemn sanctions, the immutable ordinance of caste, and it asserts, in lofty language, the unapproachable God-given supremacy of the Brahmins. But it skillfully adapts these doctrines to the actual facts. It finds in India a vast number of communities, more or less isolated by geographical position, by occupation, or by race. It accepts the customs and internal life of each of these communities as the proper and normal status of that individual community or caste. But it holds out to all an ascending scale to a higher life—the life of ceremonial purity, of self-discipline, and of religious restraint, which is the ideal life of the Brahman. If any community or caste is to rise in the social scale, it must be by an increase of ceremonial purity.

Accordingly, when any caste becomes rich or influential, its first ambition is to draw tighter its internal discipline and its religious restraints. By this process many castes have risen, such as the Vaisyas of the north and west, the Shahas, Telis, and Tambulis of Eastern Bengal, the goldsmiths of Madras, and the semi-aboriginal warrior tribes, or so-called Rajputs, in numerous parts of India. In some cases they have abandoned their labori-

ous low-caste occupations for higher employments. In others, they have assumed the sacred thread of the Twice-born.

But in addition to such individual examples, the constant presentment of a higher caste life tends to a general upward movement in religious restraints as the wealth of the population increases. The backward races outside the pale of Hinduism, set up a Hindu priest and a Hindu god, and become recognized as low-caste Hindus. The more energetic or more fortunate of the low-castes within the Hindu pale gradually raise themselves to higher standards of ceremonial purity.

There is, therefore, a plasticity as well as a rigidity in caste. Its plasticity has enabled Hinduism to adapt itself to widely diverse stages of social progress, and to incorporate the various races which make up the Indian people. Its rigidity has given permanence to the composite body thus formed. Each caste is, in some measure, a trade guild, a mutual insurance society, and a religious sect. But the mass of them are dominated by two ideas—a communal life within the caste itself, and a higher life of ceremonial purity beyond.

The work of Hinduism has been to organize the Indian races in every stage of their progress and under many forms of political government. Its plastic conservatism quickly disclosed a capacity of adapting itself to British rule. For a time, indeed, there seemed to be a difficulty. Hinduism makes a social rise dependent upon an increase in ceremonial purity.

In the new world of British India, social advancement depends upon individual exertion and secular success. The Hindu system told in favor of ceremonial restraints, the English system told against them. But English education, which created the difficulty, also found an escape from it. For Brahman theology declares that later customs, or later doctrines, are less binding than the older sacred books, and has always allowed an appeal back from the Puranas of mediæval Hinduism to the ancient Veda. This appeal has been boldly made by the educated Hindus under British rule, and it is found that the most irksome ceremonial restraints of modern Hinduism derive no support from that venerable scripture.

Even the orthodox educated Brahmans now perceive that

those restraints rest upon mediæval custom, and not upon Vedic inspiration; and they are gradually admitting that custom, although not lightly to be changed, must, in the end, adjust itself to the conditions of modern life. In regard to widow-burning, to infant marriage, to widow re-marriage, to crossing the Black Water, and to various inhuman rites—the appeal to the Veda has been successfully made. In some cases the custom has been given up, in others it is seen to depend on religious or domestic usages, which, however binding, are yet susceptible of change.

Hinduism has solved the social problems of the new Indian world, or is gradually finding solutions for them. It has frankly accepted English education and the modern methods of success in life. And when once Hinduism fairly incorporates a new idea, the new idea becomes an enduring part of its own ancient structure. Meanwhile, for the few who pass from its higher castes to Christianity, many rise in the scale of ceremonial purity within its own body, and multitudes of the backward races enter its pale.

Hinduism not only grows within itself, but it has also the faculty of putting forth outgrowths in the form of new religious orders, or spiritual brotherhoods. Such religious orders usually recall the Buddhistic type. They start with the reassertion of the unity of God, and with the renunciation of caste. At first they are considered non-orthodox, but in time they become recognized Hindu sects. Some of them, such as the great Vaishnava orders, now form a considerable part of the Hindu population. Hinduism has, therefore, a two-fold power of adapting itself to the needs of each age, by an internal process of incorporation or adjustment on the basis of caste; and by an external process of throwing off new religious outgrowths, or spiritual brotherhoods.

Into the midst of this ancient and powerful organization a new religious force has in our century thrust itself; a force animated by a profoundly different spirit. Christianity is not, indeed, a new religion in India. Its history in that country dates from a period 700 years before the rise of mediæval Hinduism, and a full thousand years before any widespread Indian settlement of Islam.

It has been my privilege to relate from local materials that marvelous narrative. I have shown how the Christian settlements on the Indian coast of the second and subsequent centuries came, after a time of decay, under Nestorian bishops from the Persian Gulf. How the Nestorian Christians of India were persecuted by the Portuguese and trampled down by the Synod of Diamper in 1599, their venerable missals and church ornaments burned and their consecrated oil poured out upon the flames. How, on the decline of the Portuguese power, their desolate remnants obtained a new bishop from Antioch, but of the Jacobite branch of the Asiatic Church, and how they have since adhered to the Jacobite rite. How, meanwhile, the Catholic Church had entered the field with a splendor of devotion and success which makes us the more deeply lament her intolerance to the earlier form of Indian Christianity. How the great religious orders of Rome, with the Society of Jesus at their head, built up a true native Church in India by three centuries of unflagging labor and wisely directed zeal, before the heart of England was stirred by the missionary impulse. How, during the last of those centuries, while the English conscience still remained inert, the Lutheran Church of Europe sent men of power to India. And how, at length, England slowly but surely saw her duty, and the Churches of the great English-speaking race, by whatever name they may be called and in whatever land they dwell, girded themselves for a mighty and enduring effort.

Although, however, Christianity has a history in India long before the rise of mediæval Hinduism or Islam, yet the historical Christianity of India differed widely from the missionary Christianity of our day. When the Portuguese landed in India they found the Christians firmly organized as military communities under their spiritual leaders, bishops or archdeacons and priests, who acted as their representatives in dealing with the Indian princes. In virtue of an ancient charter, the Malabar Christians enjoyed the rights of nobility. They supplied the body-guards of the local kings. The Portuguese, by a happy chance, landed on the very province of India in which Christians had long formed a respected caste. *O fortunati nimium sua si bona norint.* But instead of consolidating the pre-existing Christian communities

they ground them to pieces under the millstone of the Inquisition, and built up a showy, evanescent rule out of entirely new materials.

While, however, the Nestorian Christianity of India was thus of a bygone type, the records of Catholic Christianity are pregnant of instruction for our day. The great question with the Jesuit missionaries, as with our own, was how to adapt the Christianity of Europe to the Indian races without sacrificing essentials of the faith. But the new religious force now at work amid Hinduism is neither the Nestorianism of the patriarchs nor the Catholicism of the popes. The Catholic and Syrian Churches still go on calmly with their great task, and claim over 1,600,000 of the 2,148,228 Christians in India. The new disruptive force is Protestant and Anglican Christianity.

English missionary work practically began in the last year of the last century. It owed its origin to private effort. But the three devoted men who planted this mighty English growth had to labor under the shelter of a foreign flag, and the governor of a little Danish settlement had to refuse their surrender to a Governor-General of British India. The record of the work done by the Serampur missionaries reads like an Eastern romance. They created a prose vernacular literature for Bengal; they established the modern method of popular education; they founded the present Protestant Indian Church; they gave the first great impulse to the native Press; they set up the first steam-engine in India; with its help they introduced the modern manufacture of paper on a large scale; in ten years they translated and printed the Bible, or parts thereof, in thirty-one languages.

Although they received help from their Baptist friends in England, yet the main part of their funds they earned by their own heads and hands. They built a college, which still ranks among the most splendid educational edifices in India. As one contemplates its magnificent pillared façade overlooking the broad Hugli River, or mounts its costly staircase of cut brass (the gift of the King of Denmark), one is lost in admiration at the faith of three poor men who dared to build on so noble a scale. From their central seminary they planted out their converts into the districts, building churches and supporting pastors chiefly

from the profits of their boarding-school, their paper-mill, and printing-press. They blessed God that during their thirty-eight years of toil they were able to spend more than £50,000 of their own substance on His work.

But when two of them had died and the third was old and broken the enterprise proved too vast for individual effort, and the Serampur Mission was transferred to stronger hands. In death they were not divided. An evergreen circle of bamboos and palms, with delicate feathery masses of the foliage of tamarind trees, surrounds their resting-place. A path, lined with flowering shrubs, connects their tombs. And if the memory of a great work and of noble souls can hallow any spot, then this earth contains no truer *campo santo* than that Serampur graveyard.

To this dayspring of missionary labor by private enterprise succeeded a period of organized effort. The charter of 1813, which threw open India to the free commerce of England, also recognized the religious responsibilities of England in the East, and sent out the first English Bishop of Calcutta. The London Missionary Society and the Baptists had already commenced their labors in India. The Church Missionary Society, the Society for the Propagation of the Gospel, the great Non-conformist and Presbyterian societies, quickly entered the field. Before 1830 nine missionary bodies were at work; in 1881 there were 57 separate missions, with 601 stations, in India and Burmah.

Their first task was to prepare the way, by popular instruction, for higher belief. Before the Indian Government awoke to the duty of public instruction a great system of missionary education had been spread over the land. Since 1854, when the State at length fully realized its responsibilities, the missionary schools and colleges have not only retained their hold on the people, but their attendance has increased three-fold. At one time, indeed, it seemed to earnest men as if this great task of Indian education threatened to engross too large a share of Indian missionary zeal.

But during the past twenty years the spiritual force which animates all missionary work has received a fresh impulse from a

movement that recalls the early period of private missionary effort. It is the private effort, however, not alone of individual men, but of small fraternities animated by a highly concentrated devotion. These little communities, such as the Cowley Brotherhood, the Oxford and the Cambridge brethren, bring to their work the highest culture of the West. But they also present that type of ascetic zeal and self-renunciation which in India, from the time of Buddha down to the latest movements of Hinduism or Islam, has always formed the popular idea of the missionary life.

The statistical results achieved by these three missionary periods in India—the period of private effort, the period of great organized societies, and the period of societies side by side with ascetic brotherhoods—may be thus summarized. In 1851, the Protestant missions in India and Burmah had 222 stations; in 1881, their stations had increased nearly three-fold, to 601. But the number of their churches or congregations had during the same thirty years multiplied from 267 to 4,180, or over fifteen-fold. There is not only a vast increase in the number of the stations, but also a still greater increase in the work done by each station within itself. In the same way, while the number of native Protestant Christians increased from 91,092 in 1851 to 492,882 in 1881, or five-fold, the number of communicants increased from 14,661 to 138,254, or nearly ten-fold.

The progress is again, therefore, not alone in numbers, but also in pastoral care and internal discipline. During the same thirty years the pupils in mission schools multiplied by three-fold, from 64,043 to 196,360. These enormous increments have been obtained by making a larger use of native agency. A native Protestant Church has, in truth, grown up in India, capable of supplying, in a large measure, its own staff. In 1851 there were only 21 ordained native ministers; by 1881 they had increased to 575, or twenty-seven-fold. The number of native lay preachers had risen during the thirty years from 493 to the vast total of 2,856. These figures are compiled from returns carefully collected from every missionary station in India and Burmah. But the official census, notwithstanding its obscurities of classification and the disturbing effects of the famine of 1877, attests the rapid increase of the Christian population.

So far as any inference for British India can be deduced, the normal rate of increase among the general population was 8 per cent., while the actual rate of the Christian population was over 30 per cent. But taking the Lieutenant-Governorship of Bengal as the greatest province outside the famine area of 1877, and for whose population, amounting to one-third of the whole of British India, really comparable statistics exist, the census results are clear. The general population increased in the nine years preceding 1881 at the rate of 10.89 per cent., the Muhammadans at the rate of 10.96 per cent., the Hindus at some unknown rate below 13.64 per cent., the Christians of all races at the rate of 40.71 per cent., and the native Christians at the rate of 64.07 per cent. If, therefore, at the beginning of this paper I protested against missionary work in India being judged by a mere increase in numbers, it was not because I feared the test. It was, I again repeat, because religion in India must be judged by the work which it does for its own people. On the spiritual results of conversion I may not here touch.

But Christianity holds out advantages of social organization not offered by Hinduism or Islam. It provides for the education and moral supervision of its people with a pastoral care which Islam, destitute of a regular priesthood, does not pretend to. It receives the new members into its body with a cordiality and a completeness to which Hinduism is a stranger. The backward races can only creep within the outskirts of Hinduism as low-castes at the very bottom of the social edifice; and Hinduism is calmly indifferent as to whether they enter its pale or not. Hinduism has no welcome for the proselyte. No change of faith can win for an outsider admission into a respected Hindu caste.

Christianity also raises the position of woman to a degree unknown to Hinduism or Islam. To its converts in general, it assures friendly companionship, pastoral direction, and, when needful, some amount of material aid in their way through the world; while any youth of promise among its body is quickly selected for special instruction and has an exceptional chance of advancement in life.

On the other hand, the native Christian is exposed to a terrible temptation. Islam is a great teetotal society. Among

Hindus to touch liquor is the sign of low caste. I do not agree with the old Colonel who writes in the newspapers that every Christian servant in India drinks. But it is very sad that the careless, honest observer should so often arrive at this generalization. I, for one, believe that if Christianity is to be an unmixed blessing in India, it must be Christianity on the basis of total abstinence. This self-imposed restriction would in India soon grow into a binding custom, and would raise the Christian communities out of the rank of the liquor-drinking castes.

I further believe that Christianity in India must distinguish more clearly than heretofore between moral usages binding on the Christian societies of Europe and the essentials of its faith. For example, if a man has had two wives before conversion, it seems to me an inhumanity and an injustice that a change in his personal creed should annul his previous obligations. Such cases are not frequent. But they are generalized by the native critic somewhat as the drunkenness of the Christian servants is generalized by the old Colonel. In this, as in other matters, Indian Christianity must be more content to work with pre-existing materials and on the basis of historical Indian institutions; to follow, not the example of the Portuguese to the Nestorian Christians, but the pattern of the early Church.

The Indian mission station reproduces in its best form the most enduring territorial unit of Christian organization. It is the true *paroikia* of primitive days, neither a parish nor a diocese, but the Christian community, whether in a city or a district, as differentiated from the surrounding non-Christian population. The early Church did not disdain to borrow the names of its officers, and the methods of appointing its officers, from the municipal and rural institutions of the Roman Empire. Its organization closely followed the lines of the many friendly and religious societies into which men formed themselves for mutual help, amid the social strain and spreading poverty of that period. In India the religious bond has always been a social *nexus*.

The historical institutions of India afford a basis for a great Christian community, as firmly united by internal discipline and mutual help as was the early Church. I believe it is reserved for Christianity to develop the highest uses of Indian caste, as a

system of conservative socialism which has for ages done the work of a poor-law, of public opinion, and of a moral police. But it will be Indian caste humanized by a new spiritual life.

The wonderful growth of the native clergy in recent years has done something to bring Christianity closer to native institutions. The appointment of native bishops, for which the time is manifestly at hand, will do more. Indian Christianity, organized on the Indian communal basis, and in part directed by native spiritual leaders, would reproduce, as far as the divergent creeds of modern times permit, Tertullian's picture of the early Churches united by "the communion of peace, the title of brotherhood, the token of hospitality, and the tradition of one faith." I earnestly trust that the fathers of the Pan-Anglican Church, when they meet in synod next summer, may be led to consider Indian Christianity from this point of view.

Meanwhile Christian modes of thought are profoundly influencing Indian opinion in regard to the *status* of woman. It was by no accident that the widows and virgins appear so often as objects of solicitude to the early Church. Their well-being still forms a chief care of the Indian Mission station. For a time the Indian Christians seemed to have solved the difficulty of providing for their women very much as the Hindus solve it—by early marriage. Indeed, the Census Commissioner reported, in 1881, "that in the native Christian community early marriages prevail even to a greater extent than among the Hindus." Such a state of things means a disregard of economic laws, which sooner or later must bring its punishment. The ablest missionaries perceive this, and are resolutely fitting the Christian women to earn their livelihood by other means than by marriage alone. For long the missionaries may be said to have made female education their own; and even since the Indian Government accepted this duty the number of girls in missionary schools has multiplied five-fold. The one profession in India which is not overcrowded is that of the schoolmistress; and if Christian native women can win the confidence of the non-Christian community, they will in time find well-paid employment.

In this great task of raising the position of Christian womanhood in India, it is impossible to overrate the work done by the

wives of missionaries and by devoted ladies from England and America. The hall-table at which the three Serampur missionaries held their deliberations is kept sacred as when they sat round it. Two of their chairs stand at either side, the third chair at the foot. But at the head of the table is the chair of honor, in which Mrs. Marshman presided over their conferences—the first of many great-hearted Englishwomen who have given their lives and their substance to India.

I thank this society and its distinguished council for the opportunity they have given me of telling some plain secular truths concerning the religions of India. It is not permitted to a lecturer here to speak as the advocate of any creed. But on this as on every platform in England it is allowed to a man to speak as an Englishman. And, speaking as an Englishman, I declare my conviction that English missionary enterprise is the highest modern expression of the world-wide national life of our race. I regard it as the spiritual complement of England's instinct for colonial expansion and Imperial rule. And I believe that any falling off in England's missionary efforts will be a sure sign of swiftly coming national decay.

CHARLES DARWIN AND ASA GRAY IN CONTRAST.

[From the Prelude to the 197th Boston Monday Lecture, in
"Our Day" of April, 1888.]

BY JOSEPH COOK, Boston.

AGREEMENTS AND CONTRASTS OF DARWIN AND GRAY.

IT is only a few days since we laid at rest, till the heavens be no more, a leader in science who called himself at once an evolutionist, a theist, and a believer in the Nicene Creed. Asa Gray forms such a contrast to Charles Darwin in the religious use which he made of the theory of evolution, that it is eminently fitting that we should pause long and often at the side of his grave for devout meditation on the duties of those who would be true, on the one hand, to science in its best forms, and, on the other, to revelation.

Darwin's life, 1809-1882, nearly coincides with Gray's, 1810-1888. It is now thirty years to a year since papers by Charles Darwin and Alfred Russell Wallace were simultaneously presented to a learned society in London broaching the theory of evolution. Our modern thought has been revolutionized in many departments by that theory. Nevertheless, I suppose the judgment of the soundest minds is that theism under the attack of the philosophy of evolution is to suffer not destruction, but only reconstruction. This was the judgment of Asa Gray; and it will be instructive for us to notice the contrasts between his positions and those of Darwin, especially as Darwin himself admits that no one understood the theory of evolution better than our great American botanist. Over and over in letters to Asa Gray, Darwin recognizes him as the best expounder of the philosophy of evolution. "I have always said," he wrote to Gray, June 5, 1874, "that you were the man to hit the nail on the head." "I said in a former letter," he wrote September 10, 1860, "that you were a lawyer, but I made a gross mistake, I am sure that you are a poet. No, I will tell you what you are, a hybrid, a complex cross of lawyer, poet, naturalist, and theologian. Was

there ever such a monster seen before?" ("Life of Darwin," vol. ii. p. 131.) Only such many-sided minds are fit to match the wants of our complex age.

AS TO THE ARGUMENT FOR DESIGN IN NATURE.

1. Asa Gray had a strong and Charles Darwin only a weak grasp on the argument for design in nature.

In 1860, Darwin writes to Gray this very significant piece of autobiography:

"I grieve to say that I cannot honestly go as far as you do about Design. I am conscious that I am in an utterly hopeless muddle. I cannot think that the world, as we see it, is the result of chance; and yet I cannot look at each separate thing as the result of Design.

"To take a crucial example, you lead me to infer that you believe 'that variation has been led along certain beneficial lines.' I cannot believe this; and I think you would have to believe that the tail of the Fantail was led to vary in the number and direction of its feathers in order to gratify the caprice of a few men. Yet if the Fantail had been a wild bird, and had used its abnormal tail for some special end, as to sail before the wind, unlike other birds, every one would have said, 'what a beautiful and designed adaptation.' Again, I say, I am, and shall ever remain, in a hopeless muddle." ("Life of Darwin," vol. ii. p. 146.)

Asa Gray, although not pre-eminently a philosopher, seems to have had a far stronger grasp upon philosophical truth, strictly so-called, than Darwin, who abhorred metaphysical arguments.

Gifted with probably a keener insight into the laws of the physical world than any man of his generation, more capable of observing minute facts and the laws indicated by them than any man since Newton, Charles Darwin often became confused and lost his way utterly in the region of first truths. He seemed to have little or no grasp upon the self-evident truth that every change must have an adequate cause; and so that life can proceed only from life, thought from thought, and will from will;

that evolution must proceed from involution, and that adaptation of means to ends can be explained only as the result of Design.

AS TO THEIR COMPANIONS.

2. Charles Darwin had agnostic companions; Asa Gray, theistic.

Mr. Huxley has been perhaps more influenced by Darwin than Darwin by Huxley; but the agnosticism of Huxley, and especially the combativeness of this great observer and theorizer, I cannot say great philosopher, must have influenced Darwin. The circle which Darwin met as guests in his country-place, and especially the circle in which he moved when he went up to London from Down, was agnostic in conviction, and that creed was far more fashionable a few years since than it now is. In Darwin's later period it attained, perhaps, the climax of its power. Huxley called himself an agnostic, and so did Darwin, although at times leaning far toward theism. Darwin says of himself that when he wrote his book on the "Origin of Species" he deserved to be called a theist, but "now I prefer to call myself an agnostic." That was his final statement in the year 1881, the year before he died.

So far from agnosticism being the creed of learned men in London at the present time, Professor Huxley has been succeeded as president of the Royal Society at the Burlington House by the Rev. Professor Stokes, a man of the most earnest Christian convictions. When Professor Drummond was in this country last summer, he said to me that no election was so much coveted by men of science in London as one to that presidency, and that the appointment of Professor Stokes, with his well-known progressive Christian positions, was one of the most significant signs of the times as to the attitude of philosophy of the esoteric kind in the circles of scientific men in the metropolis of the world. At Harvard University, however much the Spencerian philosophy may have been echoed in one or two quarters at Cambridge, there has never been a predominant school of agnosticism. Our great teachers of philosophy yonder on the Charles have been good theists, and undoubtedly Asa Gray was influ-

enced by his companionships. When twenty-five years ago it was my fortune to study in Cambridge, I used to see there men who appeared to walk in the presence of the Invisible. There were at least seven men moving to and fro in the classic shades of Harvard who appeared to have seen God in natural law. They were Asa Gray, Jeffries Wyman, Professor Cooke, Francis Bowen, Benjamin Peirce, President Hill, Louis Agassiz. All these men held a philosophy which taught that natural law is only the constant method of the Divine action. Agassiz, indeed, resisted the tendency of scientific men to accept some form of the theory of evolution. He regarded it as scientifically discredited by the absence of any remains of the missing links between earlier and later species. Darwin's reply was that the geological record was imperfect, and on that ground debate turned twenty-five years ago. There has been a reaction at Cambridge against any little ripples of agnosticism which have rolled across the sea of University thought there. One or two younger men, who were proud of the creed of mere agnosticism ten or fifteen years ago, have now become very reverent theists, to say the least.

"Our dear and admirable Huxley
 Cannot explain to me why ducks lay,
 Or rather, how into their eggs
 Blunder potential wings and legs.
 Who gets a hair's-breadth on by showing
 That Something Else sets all a-going?
 Farther and farther back we push
 From Moses and his burning bush;
 Cry 'Art Thou there?' Above, below,
 All nature mutters *yes* and *no*!
 'Tis the old answer: we 're agreed
 Being from Being must proceed,
 Life be Life's source."

LOWELL, *Heartsease and Rue*, p. 186.

AS TO THEIR ATTENTION TO RELIGIOUS TRUTH.

3. Not only as to their companions were Darwin and Asa Gray a striking contrast, but also in the degree of their attention to religious truth.

Through his whole life Asa Gray was a student of religion and of theology. His brain never became atrophied from disuse on these themes. But Darwin says in words here before me: "I have never systematically thought much on religion in relation to science or on morals in relation to society; and without steadily keeping my mind on such subjects for a long period, I am really incapable of writing anything worth publishing." (Vol. i. p. 276.) "I feel in some degree unwilling to express myself publicly on religious subjects, as I do not feel that I have thought deeply enough to justify publicity." (Page 275.) Darwin's son says of his father: "He did not give continuous systematic thought to religious questions." (Page 274.) There was a great contrast between Darwin and Gray in their use of Sunday. Through a large part of his mature life, Darwin worked seven days each week, and every now and then was obliged to give himself vacations. He made little distinction between Sunday and any other day, and in the agnostic circle which was nearest him perhaps he might have been sneered at had he made the distinction.

4. There was a difference, of course, world-wide, between these two men in their faith in revelation.

Darwin was early educated according to the fashions of the Anglican establishment, but he wrote to a German student, in a hasty letter penned in his declining years: "For my part, I do not believe there has ever been a revelation made."

On the contrary, the theistic form of the theory of evolution, as held by Asa Gray, never disturbed his luminous Christian faith. He was a revered member of the historic church standing yonder under Washington's Elm in Cambridge, and was everywhere recognized as a Christian of great earnestness and even of aggressiveness, in spite of his familiarity with the attitude of skeptical thought throughout the world. His eloquent pastor and friend, the Rev. Dr. Alexander McKenzie, lately said of Asa Gray, in a memorial discourse:

"The faith of his boyhood broadened into the faith of his manhood, but was true to itself in all its course. He enjoyed books of theology, and studied the questions of religious philosophy with the keenest delight. He was called to be the in-

structor of theologians, and with absorbing interest they hung upon his words, to have darkness changed to light, and fear to confidence, as he opened his commentary on science and religion. He entered the church here when he entered the college, and he taught in its school. He was faithful and reverent in its services. He read the Holy Scriptures, while he said, 'It cannot be that in all these years we have learned nothing new of their meaning and uses to us, and have nothing still to learn; nor can it be that we are not free to use what we learn in one line of study to limit, correct, or remodel the ideas which we obtain from another.' He was happy when in the East he found illustration of the Book, as the shepherd going before his flock, which knew him and followed him. But his own life gave him continual illustration of its precepts. He felt that 'as brethren uniting in a common worship, we may honorably, edifyingly, and wisely use that which we should not have formulated, but may on due occasion qualify.' As he held that 'revelation in its essence concerns things moral and spiritual,' so did he hold that the essentials of worship are spirit and truth. He believed 'that revelation culminated, and for us most essentially consists, in the advent of a Divine person, who, being made man, manifested the Divine nature in union with the human; and that this manifestation constitutes Christianity.'

"Thus he made up his life of accomplishments and piety, 'with gladness and singleness of heart, praising God, and having favor with all the people.' It was good preparation for the years which have no end. The snow was white about his grave, and the winter sky was clear and cloudless over it, when we laid him to his rest, with the living green around him. We knew he was not there. 'For Thou, Lord, hast made me glad through thy work; I will triumph in the works of thy hands.'

"He knew the constancy of truth, and he liked the creed which the faith of centuries has hallowed."—*Sermon in Appleton Chapel, Harvard College, February 12, 1888, pp. 28-30.*

Of Benjamin Peirce, one of Asa Gray's companions, and the foremost American mathematician of our time, the venerable Dr. Peabody, formerly preacher of Harvard University, says:

"He always felt with adoring awe that the mathematician

enters, as none else can, into the intimate thought of God. He was a theist and a Christian. Conversant with the various phases of scientific unbelief, and familiar with the historic grounds of skepticism, he maintained through life an unshaken belief in the Supreme Creator and in his self-revelation in Jesus Christ."—*Harvard Reminiscences*, p. 186.

AS TO THE GROWTH OF SOUL IN OLD AGE.

5. As to the growth of the soul in old age, these men stand in profound contrast.

Darwin lost his interest in nearly everything except observation of physical facts. Music and poetry became almost nothing to him. He says of himself that his insensibility to distinctively religious emotion and argument is not to be quoted against that kind of evidence, any more than the insensibility of some people to different colors is to be quoted against the universal perception by the human race of such colors. His self-culture was by no means as well-balanced as Asa Gray's. Giant as Darwin was, he to some extent became one-sided through long devotion to a single specialty. The mind of a mere specialist has only sectional completeness. I would say no word against specialists; they should be revered as the men who mine far into the earth; but it is not best always to live at the bottom of a well. Sometimes they should come to the curbstone and look abroad upon the earth and the stars. Asa Gray did that oftener than Darwin, and so retained on the whole a better grasp upon modern thought.

AS TO LEADERSHIP IN THE PHILOSOPHY OF EVOLUTION.

6. It is Asa Gray as a theist, rather than Darwin as a bewildered agnostic, that the advance of science lifts to a position of leadership of a new generation in the discussion of the philosophy of evolution.

What I want to emphasize chiefly is the position of the new generation which has arisen since evolution was broached as a philosophy. Here is a book entitled "The Ethical Import of Darwinism," which I am very glad to recommend to every young student of metaphysics or ethics. It is by a distinguished teacher

of Cornell University, Professor J. Gould Schurman, recently a professor in the University at Halifax, in the British Provinces, where I once happened to be his guest. He was a pupil of Martineau and Lotze. This book is dedicated to Martineau in most beautiful words. The keenest defender of Darwinism could not accuse Professor Schurman of unfairness in his representation of that scheme of thought. This book shows the position of the new generation, certainly so far as it has been led by Lotze and not by Spencer. After thirty years of discussion, what have we to criticise in the Darwinian theory? What we insist upon now in the new generation is that Darwinism shall give us an account not merely of the *survival* of the fittest, but of the *arrival* of the fittest, and that, except in the form in which Asa Gray held the theory, it never has done.

Professor Schurman, in a highly suggestive passage, writes as follows:

“ Natural selection produces nothing; it only culls from what is already in existence. The survival of the fittest is an eliminative, not an originative process. And yet it is the explication of this apparently subsidiary process that constitutes Darwinism. The fact of variations in organic beings having been demonstrated from the experience of breeders, the sphinx of science was the problem of their accumulation into specific characters. It was not the business of biology to consider what the fact of variations implied. That falls to philosophy, whose function it is to examine the starting-points and first principles with which the various sciences uncritically set about their specific task.

“ *The survival of the fittest, I repeat, does not explain the arrival of the fittest.* Natural selection is a term connoting the fact that of the innumerable variations occurring in organisms, only the most beneficial are preserved, but it indicates nothing concerning the origin or nature of these variations. As in them, however, is enveloped all that is subsequently developed, they form the sole ground for philosophizing in connection with Darwinian science.

“ Professor Huxley goes on to say, ‘It is quite conceivable that every species tends to produce varieties of a limited number and kind, and that the effect of natural selection is to favor the

development of some of these, while it opposes the development of others along their predetermined line of modification.' This limitation of the number of variations and the predetermination of their character are conceptions, foreign, I believe, to Darwin's habitual mode of thought, but they may now be considered tenets of the school; and Professor Asa Gray, adopting categorically the suggestion of Professor Huxley, declares, 'The facts, so far as I can judge, do not support the assumption of every-sided and indifferent variations.' (Professor Schurman, "The Ethical Import of Darwinism," pp. 78-83. See also Professor Cope on the "Origin of the Fittest.")

THE ARRIVAL OF THE FITTEST, EXPLAINED ONLY BY THEISTIC EVOLUTION.

Variations occur in individuals, those individuals struggle for existence, they compete with each other, the fittest survives. How do the variations originate? That is a fair question, and it has never been treated with any great candor by Darwinian philosophers. Even Huxley passes over it in a rather furtive manner. And Darwin says, when asked how the variations originated, that they came into existence spontaneously. What does he mean by that word? Does he intend to inculcate the proposition that the universe is governed by chance? By no means. Professor Huxley says: "Variations we call spontaneous, because we are ignorant of their causation." "When Darwin uses the word spontaneous concerning the origin of variations, he merely means that he is ignorant of the cause of that which is there dormant." But, years ago, Asa Gray said: "A sufficient cause and rational explanation of organic forms must include that inscrutable something which produces, as well as that which results in the survival of the fittest." Asa Gray taught years ago precisely what Professor Schurman teaches now, that the survival of the fittest does not explain that inscrutable something which causes the arrival of the fittest. But he said also, and Darwin was pleased with the remark: "Let us recognize Darwin's great service to natural science in bringing back to it teleology; so that instead of having morphology *versus* teleology, we shall have morphology wedded to teleology." ("Life of Darwin," ii.

p. 367. In the final outcome of their lives, however, this great service to the philosophy of evolution was performed by Gray rather than by Darwin. It was Asa Gray who affirmed that these variations contain the whole gist of the matter, and that they have been "providentially led along beneficial lines of design." (See "Darwiniana," by Professor Asa Gray, especially Article xiii. on Evolutionary Teleology.) It is this thoroughly theistic doctrine which has survived examination and contest. Asa Gray and Hermann Lotze, therefore, are much more nearly the leaders of the new generation in philosophy connected with natural history than are Charles Darwin and Herbert Spencer.

HERMANN LOTZE ON GOD IN NATURAL LAW.

Hermann Lotze was never carried off his feet by the fashionable, crude forms of agnostic speculation in support of the theory of evolution. Here at the side of Asa Gray's last resting-place, let me read a few of Lotze's great sentences on the most vexed philosophical question of our age. Last summer at Lake George, under the beeches of my native acres, I spent much time on Lotze's "Microcosmus," and copied out epigram after epigram that I might pin them to the walls of my study, and refresh my thoughts occasionally by reading wisdom which I believe to go to the centre of this modern discussion as to evolution :

"Whatever mode of creation God may have chosen, none avails to loosen the dependence of the universe on Him, none to bind it more closely to Him." ("Microcosmus," i. 527.)

"All the laws of mechanism in nature are but the very will of the universal soul." (i. 396.)

"The nature of things and their capacity of action are a non-entity without God." (ii. 132.)

"Nature never works without the concourse of God." (ii. 133.)

"The sphere of mechanism is unbounded, but its significance everywhere subordinate." (ii. 724.)

"The whole sum of nature can be nothing else than the condition for the realization of Good, can be as it is only because thus in it the infinite worth of the Good manifested itself. The

unsearchable wisdom of God is the source of all finite forms." (i. 396, 397.)

This is a philosophy as old as Leibnitz, as old as Aristotle, as old as the Holy Scriptures, and yet quite abreast of the keenest modern thought.

England never has been great in philosophy strictly so-called. Scotland has been great; Germany has been great; it remains to be proved whether America will be great. My conviction is that it is safest for you to look to Germany or Scotland, and not to England, for philosophical instruction. England is great in physical science, and in political science, and in ruling a large part of the world; but for some reason, while England develops Newtons and Shakespeares and Chathams, she develops no Kants, no Leibnitzes, no Lotzes. This is a very significant fact when you remember that it has characterized ten generations of English thinkers. Great as England is in every other department, she is a pygmy compared with Scotland or Germany in the discussion of fundamental, philosophical truths. We shall outgrow Spencer; but not in my time, nor in the time of the youngest here, shall we outgrow Hermann Lotze.

At Asa Gray's grave, therefore, in this solemn hour, and looking as he did, the whole scientific world in the face, let us each repeat his holy creed:

"I believe in one God, the Father Almighty, Maker of heaven and earth, and of all things visible and invisible.

And in one Lord Jesus Christ.

And I believe in the Holy Ghost, the Lord and Giver of life.

And I look for the resurrection of the dead, and the life of the world to come.
Amen."

This was the attitude of Asa Gray thirty years after the arrival in the world of the Darwinian theory. The arrival of the fittest is to be explained only by the action of God's right hand.

THE HUMORS OF METAPHYSICS.

ONE of the most remarkable characteristics of Dr. Martineau's metaphysics is the humor with which he treats the fundamental issues, wherever they are not involved with matters too grave to admit of such treatment. It has often been so with the greater thinkers. Plato's dialogues are often full of humor, and of humor of the most genuine kind; and so far is it from being a quality alien to the discussion of the ultimate issues of the thinker, that there is probably no world in which there is a deeper insight given into the springs of those sudden metamorphoses of attitude and feeling in the apt variations on which humor consists, than the world of the deeper psychology and metaphysics. Thus, when Socrates is trying to explain the mysteries of implicit and explicit knowledge, and to discover how it is that a man may blunder about that to the accurate knowledge of which he has a sure clew in the resources of his own mind, Plato describes him as suggesting that though he *possesses* the knowledge, in the sense of having access to it, he has not positively *got* it till he lays his apprehensive mind upon it, and that even in doing so, he may lay it sometimes upon the wrong item, and so, instead of catching the bit of knowledge of which he is in search, catch something of which he is not at all in search; and Socrates likens such a man to the possessor of an aviary of all sorts of birds, some in flocks, some in small groups, some solitary, who, when he is in search of a particular pigeon, gets hold instead of a ring-dove, and so proves that a winged thing which he in some sense possesses, is yet not absolutely his,—that though he knows what he wants, he does not know it well enough to fix upon it without first capturing something which he mistakes for that of which he is in search. This imaginary aviary of Plato's, in which false and true opinions are flying about like ring-doves and pigeons and other more solitary birds, with an owner close at hand, but without a master sufficiently intimate with them to discriminate them infallibly the one from the other, is a humorous enough symbol of almost all metaphysical and psychological systems, where the most experienced thinkers are always putting

out their hands for a lark and catching a pigeon, or putting out their hands for a dove and catching, perhaps, an ill-omened raven. Hence, dry as the deeper subjects of philosophy are usually held to be, it is very common to find humorists of the truest kind among those who are able to treat them with the greatest power. Pascal was such a one; so was Coleridge; so in our own day have been the late Dr. Ward, Dr. Martineau, and Cardinal Newman.

In the volumes just published by Dr. Martineau on "A Study of Religion," there are, we need hardly say, innumerable discussions in which the more solemn theme is not directly involved, so that the thinker is able to treat the outlying provinces of philosophy with that comprehensiveness and ease which afford room for the evidence of the humor to which we refer. For example, in dealing with Mr. J. S. Mill's explanation of his view as to the belief in an external world, Dr. Martineau remarks that Mr. Mill relies in part on the fact that every thinker finds himself confirmed by *others* in this belief,—though the very question at issue is whether there is any satisfactory evidence to take him beyond the circuit of his own inner consciousness; whereupon Dr. Martineau comments that "till we have got the door open out of our own egoistic chamber and found that there is a field beyond, it is premature to serve a summons on inconceivable people there to come and bear witness to its existence."

And again, Mr. Mill having as yet found no bridge over the chasm from the thinking subject to any real world outside, Dr. Martineau notices that though he does not bridge the chasm, he leaps it, "but does not tell us how he managed to leave *himself* behind him,"—a feat without the achievement of which Mr. J. S. Mill would, of course, still have remained like every pure idealist imprisoned (theoretically) in himself. Again, what can be happier than Dr. Martineau's criticism on those philosophers who regard every object as constituted of qualities without a substance? It is impossible, he says, to think of a *thing* as a mere "public meeting" of its attributes, however often the assembly may be called. Once more, take this commentary on the use which the empirical thinkers,—such as Dr. Bain,—always make of the baby in whose imagined history they hide away all the

most marvelous secrets of our intellectual growth?—"I do not question the value within certain limits of such careful study as Bain has devoted to human infancy, and even newly dropped lambs and staggering calves; but the psychological baby that he is so fond of dandling seems to me to become a sort of fetish to him, from which he expects and wrings oracles it was never meant to give. As it cannot contradict him, he has it all his own way; and can so tell the story of what is going on within, when it sprawls and springs and laughs and turns and fumbles with the hands, as to lead up to a foregone conclusion. A large part of his characteristic psychology appears to me to consist of misleading inferences correctly drawn from the contents of a hypothetical infant." Still more striking in its way is the criticism on those pantheistic thinkers who hold it as proving any doctrine concerning the universe false, to show that it is anthropomorphic,—in other words, a doctrine constructed from the human point of view. "Our thought," says Dr. Martineau, necessarily "holds on to a locus whence its survey is taken of *all else*; it sails in its little skiff and looks forth on the illimitable sea and the great arch of the sky, and finds two things alone with one another, the universe and itself; the metaphysicians who, in their impatience of distinction, *insist on taking the sea on board the boat*, swamp not only it but the thought it holds, and leave an infinitude which, as it can look into no eye and whisper into no ear, they contradict in the very act of affirming." In all these instances,—and we could give many others,—Dr. Martineau seems to us to make humor in the truest sense serviceable to his thought, by bringing out through its help the very essence of some huge philosophical miscarriage. What can describe more accurately the fruitless aspiration of all pantheism than this description of it as an attempt "to take the sea on board the boat"?

Humor, according to Carlyle, who, however, did not accommodate his own humoristic practice to his definition, delights rather in taking up the littleness of life and saturating it with what is sublime, than in bringing down what is good in life and showing its kinship to that which is petty. In fact, true humor may be shown in both ways,—in the former way, by a deeper

study of what is only apparently insignificant, so bringing out its deeper significance; in the latter way by a study of what is really pretentious, so bringing out its deeper hollowness. The greater philosophical humorists, from Plato downward, have used their humor with the utmost freedom in both ways. But Dr. Martineau uses it even more in the fashion which Carlyle regards as its normal function, and we can hardly give a nobler example of it in its higher imaginative type, than the fine passage in which he humorously replies to the foolish physical criticisms on our planet which the various devil's advocates, from Lucretius downward, have pressed in the hope of disproving what is called the argument "from design," and of showing that our earth is a mere physical accident, and not the product of any wise and provident purpose:

"Complaint is made of several *useless* and *unmeaning* arrangements. Even in the inorganic world, faults have been freely pointed out by scientific critics from the time of Empedocles to that of Comte and Mill;—on our earth, the surrender of the polar regions to ice that never melts and of the equatorial to heats that never cease to parch; and of enormous areas between, to barren deserts and inhospitable seas; the recurring desolation of fertile lands by earthquakes, volcanoes, and hurricanes; in the moon, the absence of atmosphere and water, its one-sided gaze upon the earth, its awkward periodic time, tantalizing us with scanty glimpses of its face; in the solar system, the great gap between Mars and Jupiter, given up to petty asteroids, of which you could survey a sample in a day's walk, and half a dozen, if they were worth anything, might be sold in an auction-room in a single lot; the excessive heat of Mercury and cold of Neptune; the fifteen years of alternate night and day near Saturn's poles; the progressive cooling, contraction and resistance which must reduce the whole to a dead mass; and, throughout the stellar regions, the enormous waste of space unclaimed by worlds, and of light diluting itself through vacancy. Facts of this kind may fairly enough be called *unmeaning*, if no more is intended by the phrase than that we do not know their *raison d'être*; and *useless*, if, in order to try them, a purpose is assumed which they fail to serve. On the supposition that the arctic and antarctic

latitudes, that the Sahara, that the Pacific regions, were intended for the residence of man, no doubt the ice, the sand, and the salt flood are so many blunders. If the laws of heat which determine the currents of the atmosphere and work in subterranean depths, have no end but to secure the tiller of the soil in his dwelling and his crops, they certainly incur a failure in every outburst of Etna or Boreas. Are the satellites to be criticised as lamps alone? then, it must be admitted, they might, by dispensing with their phases, have given more light. But by what right do we judge a solar system from a mere geocentric, nay, from a purely humanistic point of view? Look at its age, its scope, its history, its relations to innumerable systems vaster than itself; and say whether the last comer on one of its planets is entitled to measure the ends which it embraces by his particular needs. Included though they be in the whole, what part of it are they likely to occupy? If it be anthropomorphic to admire an arrangement of Nature because it is useful to man, is it less anthropomorphic to condemn one because it is useless to him? No considerate Theist imagines Man to be the central object of the universe, by the standard of whose requirements all things are to be judged: even if he did apply this narrow rule to the constitution of the globe on which he lives, he need hardly be much disturbed by Lucretius' bad opinion of the equator and the poles. The Roman poet, it seems, would have preferred a human estate all under culture, compact and occupied, uniform in temperature, and with no more water than was needed for irrigation and for drink; with no moor and mountain to part the fields, no freshening play of ocean and air where man is not, no refrigerating winds to fling a wreath of snow, no African glow to cross over and move the Alpine glaciers; but a snug little planet, without a waste place or a wild beast, and so comfortable that it would soon swarm like a Chinese empire or an ant-hill, and no 'one could be alone on all the earth.' This is the landscape-gardening of philosophy; from which, for my part, I gladly escape back to the wild forest or the open sea, or even the stern wonders of the ice-bergs and the northern lights. On Comte's proposal for improving the moon by having it full every night, I can pass no mathematical judgment: his scientific critics say it would be fatal to

the satellite's equilibrium; but I confess to such a love of the monthly story of her orb from the first crescent to the last decrescent phase, that, to save it, I would accept a gaslight or even carry a lantern on dark nights."

The truth is, we suppose, that Lucretius did not sufficiently discern how utterly unsuitable such a planet as he conceived likely to promote human comfort most, would be to the nature of man, which has so much in it that is wild and desolate and incapable of being "cabined, cribbed, confined" in any home like that which he conceived. His failure consisted rather in not having measured the scope of man's evil and his good, in not seeing man's relation to what is truly infinite, than in his contempt for that misreading of the earth which assumed that it is precisely such a dwelling-place for human nature as a "magnified" man would have devised if he had been asked for a minute specification of a planet adjusted to a civilized Roman's tastes and wants. But Lucretius, though a true poet, was certainly not a humorist as well.—*Spectator.*

JAMES RUSSELL LOWELL ON RELIGION.—The serious strain in which James Russell Lowell, our late Minister to England, recently in an after-dinner speech replied to some skeptical diners-out, has attracted much attention. The following is an extract:

"I fear that when we indulge ourselves in the amusement of going without a religion, we are not, perhaps, aware how much we are sustained at present by an enormous mass all about us of religious feeling and religious convictions, so that, whatever it may be safe for us to think—for us who have had great advantages, and have been brought up in such a way that a certain moral direction has been given to our character—I do not know what would become of the less favored classes of mankind if they undertook to play the same game."

"Whatever defects and imperfections may attach to a few points of the doctrinal system of Calvin—the bulk of which was simply what all Christians believe—it will be found that Calvin-

ism, or any other *ism* which claims an open Bible and proclaims a crucified and risen Christ, is infinitely preferable to any form of polite and polished skepticism, which gathers as its votaries the degenerate sons of heroic ancestors, who, having been trained in a society and educated in schools the foundations of which were laid by men of faith and piety, now turn and kick down the ladder by which they have climbed up, and persuade men to live without God, and leave them to die without hope.

“ The worst kind of religion is no religion at all, and these men living in ease and luxury, indulging themselves in ‘the amusement of going without religion,’ may be thankful that they live in lands where the Gospel they neglect has tamed the beastliness and ferocity of the men who, but for Christianity, might long ago have eaten their carcasses like the South Sea Islanders, or cut off their heads and tanned their hides like the monsters of the French Revolution. When the microscopic search of skepticism, which had hunted the heavens and sounded the seas to disprove the existence of a Creator, has turned its attention to human society, and has found a place on this planet ten miles square where a decent man can live in decency, comfort and security, supporting and educating his children unspoiled and unpolluted; a place where age is reverenced, infancy respected, manhood respected, womanhood honored, and human life held in due regard; when skeptics can find such a place ten miles square on this globe, where the Gospel of Christ has not gone and cleared the way and laid the foundation and made decency and security possible, it will then be in order for the skeptical literate to move thither and there ventilate their views. But so long as these men are dependent upon the religion which they discard for every privilege they enjoy, they may well hesitate a little before they seek to rob the Christian of his hope, and humanity of its faith in that Saviour who alone has given to man that hope of life eternal which makes life tolerable and society possible, and robs death of its terrors and the grave of its gloom.”

MONTHLY MEETINGS.

By the Secretary.

THE regular monthly meeting of the Institute was held in its rooms, No. 4 Winthrop Place, Thursday, April 5, at 8 P. M., the President being in the chair. The devotional exercises were led by Rev. Dr. William W. Clark, of New York. The minutes of the last meeting were read and approved.

The following names of new members were announced :

Donald Macleod, D.D., Glasgow, Scotland ; Charles L. Hogeboom, M.D., Jamaica, Long Island, N. Y.; John A. Roche, M.D., D.D., Brooklyn, N. Y.; Rev. John Reid, Yonkers, N. Y.; Rev. Edward C. Moore, A.B., Yonkers, N. Y.; Rev. J. William Flinn, A.B., New Orleans, La.; Robert Bentley, D.D., Oakland, California.

While waiting for the lecturer of the evening, who was unavoidably delayed, Rev. George W. Knox, of Tokio, Japan, gave a brief but admirable account of the state of philosophy in that empire previous to its opening to Christianity.

The regular paper of the evening was then read by Rev. Dr. Charles E. Knox, President of the Newark German Theological School, at Bloomfield, N. J. His subject was "Quotations from the Old Testament in the Gospels." After remarks by several gentlemen, it was

Resolved, That the thanks of the Institute are hereby tendered to Rev. Dr. Knox for his valuable address, and that a copy be requested for publication in *CHRISTIAN THOUGHT*.

AT the meeting of the Institute, held May 3, the devotional exercises were led by Rev. Jesse F. Forbes, of New York. The minutes of the last meeting were read and approved. The following names of new members were announced :

Prof. William B. Smith, A.M., Ph.D., Columbia, Missouri ; Miss Mary A. Greene, LL.B., Jamaica Plain, Mass. ; William J. Parker, M.D., Nashville, Tenn.

It was announced by the President that the next monthly meeting would be held on the first Thursday in October.

The regular paper of the evening was read by Charles L. Hogeboom, M.D., of Jamaica, Long Island, whose subject was, "The Limits and Uses of Scientific Research."

After a brief discussion of this interesting paper, the Institute adjourned.

ABOUT BOOKS.

[In this department we shall make mention of recent publications, especially those in the line of our studies. There will not be space for extended review. The name of the book, its publisher, and its price when known, together with a brief statement of its drift, will probably meet the demands of our readers. Any book mentioned will be sent post-paid, on receipt of price, by WILBUR B. KETCHAM, 71 Bible House, New York.]

A VERY valuable addition has been made to sacred literature by the publication of the first volume of "Systematic Theology: a Complete Body of Wesleyan Arminian Divinity." It consists of Lectures on the Twenty-five Articles of Religion of the Methodist Episcopal Church South, by the late Rev. Dr. Summers. We do not think that the world of scholarship has generally come to see the indebtedness we are all under to those theologians who have wrought in the school of John Wesley. They have generally been classed as Arminians just as some Presbyterian theologians have allowed themselves to be classed as Calvinists, while the former no more hold to certain expressions in the Quinquarticular of the Remonstrants than the latter hold to all the expressions in the statements of the Five Points of Calvinism. It would be interesting if there were space to show how closely allied are such Arminian theologians as Dr. Pope the English Wesleyan, and Dr. Summers the American Methodist, with the whole class of Presbyterian thinkers in America who before "the union" were called the New School. We think such will be found hereafter to be a great element in the value of the contributions which Wesleyan theologians have made to literature.

We can therefore very earnestly commend this new volume to all thoughtful students of theology. Dr. Summers was an Englishman by birth, became a minister of the Methodist Episcopal Church upon arriving in this country, upon the division casting his lot with the Southern Methodist Church, and at his death was admittedly the leading theologian in that Church. When the Vanderbilt University was founded there was no question for an instant who should occupy the chair of Systematic Theology in its theological department. Probably no one was thought of for a moment except Dr. Summers. For seven years he discharged the duties of that chair, and dying very suddenly, left behind him the manuscript of the lectures which he had delivered. The preparation of this matter for the press has fallen into the competent hands of Prof. Tigert of the same university, a much younger man than Dr. Summers, who has discharged his duties of arranging, completing, and annotating the work in what seems to us a very satisfactory manner. We trust that the second volume will soon be published, and, if it equal the first, we can commend the whole work to the reading public as being what its editor claims, a full, and in some sense, authoritative exposition of evangelical Arminianism as developed within the limits of Southern Methodism; and we believe we might venture to add also of Northern Methodism, as we have failed to perceive that the division of that Church has been upon any grounds which at all affect their doctrinal holdings. We think that whoever has read Dr. Hodge should read Dr. Summers, just as we should recommend all young students of theology who read Dr. Summers, to read also Dr. Hodge. The book is in 8vo. of 552 pages, price \$2, published in Nashville by the publishing house of the Methodist Episcopal Church South.

THE same publishing house has issued "Elijah Vindicated; or, The Answer by Fire," by the Rev. Dr. J. O. A. Clark. We are not quite sure that the author might not have found a more attractive name for his volume, but we feel quite sure that few men could write a more attractive volume on the splendid theme of Elijah. He has produced one of that very useful class of books which no man who is not a scholar could write, and which any

intelligent man, even not a scholar, can enjoy. He has availed himself of modern research and investigation and marked out for himself limits of good sense and good taste. Under these conditions he has written devoutly, vividly, sometimes splendidly, and produced a charming book for private and for family reading. It is in the latter way that the writer of this notice became acquainted with it; by hearing its chapters read on Sunday evening, and the reading seemed to give an elevation to all the visions of the night. The book will be instructive to those who desire to understand the history of Elijah's times, and will also furnish many a fruitful seed for private meditation, which we are sure will spring up into the rich fruitage of religious life.

THE present attitude of Mohammedanism to Christianity and the late discussion which has arisen in England, and Dr. Ellinwood's lecture on Comparative Religions recently published in *CHRISTIAN THOUGHT* in regard to Mohammedanism, makes very timely a tract of fifty pages by John C. Clyde, D.D., in which he undertakes to show that Mohammedanism is a Pseudo-Christianity. It is a valuable and trustworthy monogram for reference when one wants to compare the Koran and the Bible as to history, theology, soteriology, and eschatology. It is published in Easton, Pa., by M. J. Riegel. Price, 30 cents.

“A NEW RENDERING OF THE HEBREW PSALMS INTO ENGLISH VERSE,” by Abraham Coles, M.D., LL.D., is published in beautiful style by D. Appleton & Co., and has an excellent portrait of the venerable author. Dr. Coles unites the scientific spirit with the poetical ability in a rare degree. Christian readers are already in great debt to him for thirteen original versions of “*Dies Iræ*” and other poetical volumes. This new book is very valuable. Its version may be compared with others, and thus help to bring out new shades of meaning in the sacred original. The introduction and notes are very instructive and helpful. Some of the translations will be found to surpass any other English renderings of the same psalms. When there were so many psalms to be translated, of course there must be signs of inequality in execution. Perhaps every reader will believe he

has seen better versions of the hundredth Psalm than Dr. Coles', but where will he find a more sustained and noble rendering of the hundred-and-fourth Psalm, which, von Humboldt said, "represents the image of the whole cosmos?"

A MOST valuable addition to our books of reference is the "Progressive Supplemental Dictionary of the English Language," by the Rt. Rev. Samuel Fallows. It is a quarto of over 500 pages, quite fully illustrated by wood-cuts, and published by the Clark & Langley Co., Chicago, Ill. It is not intended to supplant any existing dictionaries, but to supplement them all. It contains over 40,000 words, definitions and phrases in Agriculture, Mechanics, the Arts, the Sciences, and the Professions. There is no such progressive language as the English, because there seems to be none that has such power of assimilation. Every few years, therefore, there must be revisions of dictionaries. But those revisions have left unchanged a vast multitude of words which form the very substance and core of the language. For each new revision, therefore, the purchaser pays a high price for a very little new matter. Bishop Fallows' Supplemental Dictionary enters the field to prevent the excellent dictionaries already sold from becoming obsolete and to supply thousands of new words and phrases, and new definitions to old words which cannot be included in the Standard Dictionaries on account of bulkiness and cost to the buyer.

